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THE AMERICAN PRACTITIONER

Certainly it is excellent discipline for an author to feel that he must say all he has to say in the fewest possible words, or his reader is sure to skip them; and in the plainest possible words, or his reader will certainly misunderstand them. Generally, also, a downright fact may be told in a plain way; and we want downright facts at present more than any thing else.—RUSKIN.

Original Communications.

ON SOME CAUSES OF CYSTITIS, AND ITS TREATMENT  
IN THE ADULT MALE.\*

BY JOHN CHAMBERS, M. D.

In presenting this subject to the State Medical Society, I shall consume no time in detailing the symptoms of inflammation of the bladder, symptoms with which every doctor is familiar. I desire merely to refer to some especial forms of the disease, and hint at remedial measures which have been found useful in its treatment.

A frequent cause of the disease in city practice is the extension backward of specific or gonorrheal urethritis. Here the inflammation attacks chiefly the prostatic portion of the urethra. It is attended by frequent and urgent calls to urinate. There is a sense of fullness and discomfort in the lower part of the rectum and the perineum. Usually there is no pain on pressure above the pubes. There is perhaps no tenderness of the prostate when felt per anum. The urethral discharge, if it has been abundant, is usually arrested, and it returns as soon as the bladder symptoms subside. It comes on sometimes after the use of astringent injections, and these certainly aggravate it. I

\* Read before the Indiana State Medical Society.

think it quite probable that they may be important factors in its production, but I have observed it in many cases in which no injections of any kind had been used. It has been noticed that the gonorrhea has assumed a severe character, extending back to the deep urethra and bladder, and has been rebellious to treatment in cases where the meatus-urinarius was of unusually small size. The restoration of the opening by incision is frequently followed by good results as a measure of treatment. I at one time had a case under my care in which a gonorrheal inflammation of the deep urethra seemed to cause non-union of a fractured femur. At the time of the injury the man had, as he supposed, just gotten well of the disease, as there was no apparent discharge. At the end of four or five months from the date of the injury, I made a microscopic examination of the urine with the view of finding out the cause of its muddy appearance, and whether it might not be due to the presence of phosphate of lime in a palpable form. My astonishment was great to see that the urine was loaded with pus corpuscles, showing such a free formation of pus, in fact, as to constitute a serious drain on the powers of a not over-robust constitution. Whether this was the sole cause of the non-union of the fracture I am unable to say. There was no other apparent cause, as there was no difficulty in maintaining good apposition of the fragments.

With regard to the treatment of gonorrheal cystitis, I am in the habit of using cubebs, in full doses, three times a day. Opium or morphia must be given when the symptoms are severe. If the disease be chronic, I have used injections into the bladder of nitrate of silver, one eighth grain to one ounce of water, or of borax or carbolic acid. The injection should be warm, and only a small quantity is thrown in at a time. I have not derived much benefit from the use of iodoform given by the mouth or rectum. Bicarbonate of potassa or liquor potassæ in ten-minim doses three times a day, by overcoming acidity of the urine, is often beneficial. These cases are frequently rebellious to all treatment. Relapses are common. A man may think himself well, but on any unusual exertion, or if



the urine become concentrated, as from free perspiration on a warm day, the symptoms of bladder irritation will return. I have of late adopted the plan of examining the urine microscopically, and never pronounce a man well of cystitis or gonorrhea so long as pus corpuscles can be found in it. I can not subscribe to a statement made by an eminent author that a few pus corpuscles in the urine is a matter of no moment. On the contrary, it is an indication of disease in the urinary tract or communicating with it. It is altogether foreign to that fluid, and an unequivocal sign that something is wrong.

A common cause of cystitis in the adult male is stricture of the urethra. If the stricture is close and of long duration, we will have hypertrophy, and perhaps sacculation of the bladder. Full dilatation or some other disposal of obstruction to the urine is the essential element in the treatment of these cases. But after the caliber of the urethra has been restored, it is necessary to re-establish the tone of the mucous membrane of the bladder and urethra by the use of warm water irrigations, which may be medicated if required.

A cause of cystitis, in the judgment of many, is the so-called stricture of large caliber. The majority of surgeons deny to these strictures any pathological significance whatever; but the researches of Professor F. N. Otis, of New York, have proved the following points: that the urethra varies in size in different individuals; that its caliber bears a definite relationship to the circumference of the flaccid penis; that its caliber can be determined by the use of an instrument known as the urethrometer; that any encroachment on the normal caliber is to be regarded as a stricture; and that such a slight encroachment may cause an obstruction to the flow of urine apparently insignificant, it is true, but enough to irritate the urethra and the bladder behind. An irritated bladder can easily become an inflamed one.

Without entering into the controversy over these propositions, I may be allowed to state my belief in their general truthfulness. Some very obstinate cases of cystitis have gotten well in my practice after the incision of slight contractions of the

urethra. We must not expect, however, that the cure will be immediate. In my experience some months have passed before the pus and string-like threads have disappeared from the urine.

In the treatment of such cases I regard the operation of dilating urethrotomy as by far the best way of disposing of the strictures. The stricture must be thoroughly divided or it will certainly recur. This can only be done by putting the strictured part on the stretch before cutting it. The incision is, I think, best made on the upper wall of the urethra, and must divide the mucous membrane well both in front and behind the stricture. The meatus should be incised at the same time, although I think it is better not to cut it to the same extent as the stricture.

I have tried in vain to dilate a stricture of large caliber in the penile urethra. It does not yield except to a slight extent, and if we attempt to force it we run the risk of producing symptoms which may be serious.

In advocating the operation of dilating urethrotomy, a word or two of caution will not be out of place. It is always a serious operation, and may be a very dangerous one. It should never be done if there is evidence of kidney disease, because under these circumstances it is liable, like all other operations on the genito-urinary tract, to cause acute nephritis—the so-called surgical kidney—and death from suppression of urine. Urethral chills without kidney troubles sometimes follow it, but they are rare when the incisions are limited to the penile urethra. Hemorrhage may occur, but I have never yet met with serious trouble from this source. These are the chief dangers. They are particularly liable to attend operation in that portion of the urethra beyond the peno-scrotal angle. They should be borne in mind and guarded against, as they can be nearly always. They are sufficient to warn the prudent surgeon that milder means should be first tried; but if they fail, the operation should be resorted to, with the view of saving the patient from the suffering and death which only too often take place as the result

of the extension of urethral and bladder inflammation to the kidneys.

Cystitis from hemorrhoids has not been observed very much in my practice. But that it is of occasional occurrence, there is abundant evidence. The vascular and nerve relationships of the parts are so intimate that we can readily understand why disease in the rectum should disturb the healthy condition of the bladder.

When cystitis has existed for a long time without apparent cause, and especially if it has been attended by hematuria, we may suspect the presence of a tumor in the bladder. These growths are mostly papillary in character, and are frequently attached by narrow pedicles. They were formerly regarded as malignant. Until lately nothing could be done except to use astringent injections to arrest hemorrhage and opiates to allay pain.

Sir H. Thompson\* has recently introduced a method of exploring the bladder and removing any growths susceptible of detachment. Thompson's operation is so practicable, and withal so free of danger, that its details should be generally known: "The patient is to be placed in the ordinary position for lithotomy. A rather short, well-curved staff, with deep median groove, is passed into the bladder. The operator enters the point of a long, straight bistoury about three quarters of an inch above the anus, and makes a vertical incision upward of the skin, not more than an inch or an inch and a quarter in length. He then carries inward the knife deeply, nearly parallel with the rectum, in which the left index should be placed to inform the operator of the relative positions of the blade and the bowel until the point reaches the groove of the staff about the membranous portion of the urethra. He is next to incise the tissues covering the groove for about half an inch. The left index is then to be introduced into the wound, the nail insinuated into the groove, then slowly into the urethra beyond, gradually dilating it. When the finger is fairly lodged in the prostatic urethra,

\* See *Lancet*, February 3, 1883.

the staff is withdrawn, and the finger is pressed firmly onward until it enters the neck of the bladder; and it should now be felt to fill, or nearly so, the entire wound; and it does so if the incisions have been made as directed. As a rule, very little bleeding results. The operator now, maintaining his finger in the situation described, should rise from his seat to the standing position, place his right hand on the patient's abdomen directly above the pubic symphysis, and make firm pressure into the pelvic cavity. He will soon recognize the end of the left index finger, and by concerted movements of the two hands he may, as I have already said, examine with ease the upper surface of the bladder, and explore the lateral walls, the fundus, and trigone—the latter more completely, if necessary, by placing the other index finger in the rectum. You will observe that the procedure thus described is simply a limited external urethrotomy, not 'cystotomy,' as when incision of the neck of the bladder has also been made. . . . The incision involves only a small portion of the urethra anterior to the prostate and neck of the bladder, which are left perfect and intact throughout. Hence its result is to enable the male bladder to be examined almost as readily as that of the female in its natural condition, an approximation to which is attained by the operation. We will now suppose the result of such an exploration to have been, that the operator's finger recognizes the presence of a soft, protruding mass or flocculent growth springing from some part of the bladder. If brought within reach of the finger by supra-pubic pressure, it is easy to verify the nature of the peduncle, whether it be narrow or broad, together with any other physical characters which are obvious to the touch. The operator will next introduce a forceps, the extremities of which meet by broad, roughened edges, so that they nip off, without cutting, the greater part of the salient portions of the tumor."

Mercier, of Paris, has operated several times for the removal of the enlarged middle lobe of the prostate, but his incisions were those of lateral lithotomy. Thompson's operation seems much safer, and promises relief to many who were otherwise doomed to a life of almost constant torture.

The last form of the disease to which I shall direct attention is the cystitis, met with in men of advanced years, the result of enlarged prostate. The history of such a case is as follows: A man of sixty years or over is conscious of having to urinate more frequently than formerly, and usually there is some failure in freedom of expulsion. Suddenly an attack of acute retention comes on, for which a catheter is used. After a week or two he can make water about as usual, and fancies himself well. However, the frequency of urination increases, and if matters are allowed to continue he will pass his urine in spasmodic spurts every twenty or thirty minutes, night and day, necessitating the use of a urinal to protect his clothing and person from continual saturation with offensive urine. His complaint to the physician is, that he passes too much water. The total amount of urine in twenty-four hours may be much above the normal. Sometimes the urine contains albumen, the result of secondary kidney congestion. It always contains pus and mucus. The man is miserable, and can rest neither day nor night. If you direct him to pass urine he will do so, and assure you that the bladder is empty, but on introducing a catheter you will, on reaching the bladder, astonish him by drawing off from eight to twelve ounces of purulent urine. The enlarged prostate has lifted up the urethral orifice so that it is no longer the most dependent portion of the bladder. The urine is retained in this depression, and produces irritation and inflammation. Hypertrophy and sacculation quickly follow.

There is nothing in medicine or surgery more striking than the benefit derived from the frequent and habitual use of the catheter in these cases. Its introduction at bed-time will often give a few hours' sleep, which had not been enjoyed for a year or more. A Nelaton or soft rubber catheter is to be preferred when it can be made to enter. In some cases I have failed in passing it, but succeeded with an ordinary gum catheter. The instrument should have a bold curve, extending quite to the point, and will usually enter most easily if kept well up to the upper wall of the passage as it makes its way through the pro-

state. I have derived benefit from the injection every day or two of water containing borax, glycerin, and carbolic acid in the proportions of five grains borax, fifteen drops glycerin, and three drops carbolic acid to one ounce of water at 100° F. The carbolic acid blunts the sensitiveness of the mucous membrane, and the injection, if gently made, is very grateful to the patient. The ordinary catheter used to draw off the residual urine should be partly withdrawn, so that its point can not irritate the mucous membrane. Through this about an ounce of fluid may be slowly injected, allowing it to escape before repeating the operation. After the sensitiveness of the parts has been modified, an effort may be made to restore the dimensions of the contracted bladder by injecting as much fluid as possible without inflicting pain.

At the same time we may use ergotin in three-grain doses three times a day with the view of lessening congestion of the prostate. The bowels should be kept open by aloes, strychnia, and belladonna in combination. Saline aperients are hurtful in some cases because of their stimulating effects on the kidneys already in a state of congestion.

I advocate the early use of the catheter in all cases of enlarged prostate. It should be employed just as soon as we find that the patient is unable to clear his bladder by the natural expulsive efforts, because residual urine will excite cystitis to a certainty.

As a last resort it may be desirable even to perform cystotomy, in order to give a free outlet to pus and debris. The risks of the operation would be necessarily great; but if one should be fortunate enough to find a moderately enlarged middle lobe of the prostate, it might be removed after the plan of Mercier.

INDIANAPOLIS, IND.



ON THE ANATOMY, SURGERY, AND HYGIENE OF  
THE RECTUM.\*

BY JOSEPH EASTMAN, M. D.

The rectum is the terminal portion of the large bowel, extending from the sigmoid flexure to the anus, varying in length from six to eight inches. It is divided, for purposes of study, into three parts; the first, or upper portion, beginning where the sigmoid flexure ends, at a point opposite the left sacro-iliac junction, thence passing obliquely downward, from left to right, to the middle of the third piece of the sacrum, this portion being almost completely surrounded by peritoneum and connected to the sacrum behind by a portion of that membrane called the meso-rectum; and in this fold the terminal branches of the artery and vein are found. It is in relation behind with the pyriformis muscle, the sacral plexus of nerves, and the branches of the internal iliac artery of the left side, which separates it from the sacrum and sacro-iliac symphysis. In front it is separated, in the male, from the posterior surface of the bladder; in the female, from the posterior surface of the uterus and its appendages by some convolutions of the small intestines. The middle portion, closely connected to the concavity of the sacrum, covered by peritoneum on the upper part of its anterior surface, it is in relation in front, in the male, with the triangular portion of the base of the bladder, the vesiculæ seminales, and vasa deferentia; more anteriorly with the under surface of the prostate gland. In the female it is adherent to the posterior vaginal wall. This portion is about three inches in length, and extends to the point of the coccyx. The lower portion is about an inch and a half in length. It curves backward at the fore part of the prostate, and terminates at the anus. It has no peritoneal covering, and is invested by the internal sphincter, supported by the levator-ani muscles, and surrounded at its ter-

\* Read before the Indiana State Medical Society, May, 1883.

mination by the external sphincter muscle. In the male it is separated from the membranous portion and bulb of urethra by a triangular space, and in the female a similar space intervenes between it and the vagina. This space forms, by its base, the perineum.

The rectum, like other portions of the large intestine, has four coats; but differs from other portions in being cylindrical and not sacculated. It is narrower at its beginning than the sigmoid flexure, of which it is a continuation, and gradually increases in size as it descends; and immediately above the anus it presents a considerable dilatation capable of acquiring an enormous size. This is about what Gray has to say. "Sub-peritoneal pelvic tissue," says Savage, "fills up all that part of the pelvic cavity between the pelvic roof and floor of the pelvis which is not occupied by the viscera, and is the sole bond of union between them." "Below the meso-rectum loose cellular tissue abounds." (Holden.) This is why fistulous passages are so apt to burrow in this direction. Most of our anatomical authors are sufficiently descriptive of the integument, muscles, arteries, veins, nerves, and the viscera contained within the cavities of the body; but most of them fail to give the fascia and cellular tissue, "the packing," the prominence their importance demands. Their plates are sadly deficient in this regard.

These criticisms are applicable throughout the body. For example: How little is said of the formation of the palmar fascia, so potent in directing the course of pus along the sheaths of the tendons to the wrist. And they are especially in point with reference to the cellular tissue, "the packing," between the viscera of the pelvis.\* Here, by the elastic support it gives the organs, it has a most important physiological office. Certainly we have, in pelvic abscess, pelvic cellulitis, and urethral fistula, abundant evidence that it may become the seat of most serious pathological conditions. I hope ere long we shall have, in our anatomical works, engravings made from sections of frozen bodies, as they have been brought forward by Dr. Dwight, of Boston.

\* Here plate taken from Gray, page 869 (enlarged), was shown.



Then the fascia and cellular tissue will have a showing. Bearing on this point MacLise says, "The best substitute for nature herself, upon which to teach the knowledge of her, is an exact representation of her form. A picture of form is a proposition which solves itself; it is an axiom encompassed in a framework of self-evident truth. An anatomical illustration enters the understanding straight forward in a direct passage, and is almost independent of written language. How often, as we are about to perform a surgical operation, do we find ourselves reassured and self-reliant in proportion to our ability to conjure up before our mental vision a distinct picture of the structures with which we have to deal." How important then that anatomical illustrations should be true to nature, and not represent canals distended so as to crowd out of sight their elastic support.

Prof. Thomas, *Diseases of Women*, page 157, says: "In the living, and indeed in the dead body, the vagina never gapes, as represented in the diagrams of Gray and Wilson, and never so distorts itself, unless distended by some foreign body which separates wall from wall. It no more stands distended without some such influence than the urethra does when undistended by sound or catheter. The normal vagina is a closed canal. Its anterior wall rests directly on its posterior, and is supported by it."

Now what he says with such force about the vagina is equally applicable to the rectum, and to all other canals of the body, for that matter; and certainly a correct knowledge of the anterior wall of the rectum is to its surgery what the posterior wall of the vagina is to the surgery of that canal. The two are close together, the "packing" only intervening and uniting them so that if one is prolapsed the other goes down also. I have in the last year seen a case where there was rectal disease from want of perineal support.

Prof. Thomas, then, doubts the propriety of teaching by steel engravings that the vagina is always open, and it is my earnest hope that ere long other doubting Thomases will arise, and the widely distended rectum (in our standard text-books)

will be shown in its normal condition, closed by the contractability of its fibers and the spongy cellular tissue surrounding it. The anatomical plates from which students receive mental impressions so easily should show more fully "the packing" around the rectum, in which so many of its diseases find a lurking place. It is "the packing" around the spindles and cylinder that absorbs the debris produced by steam-pressure and friction from the melting tallow and life-giving steam of the engine. So it is the loose, spongy cellular tissue throughout the body which absorbs the poisonous products of the melting solids and life-giving fluids, and retains them, in many instances, until they undergo further decomposition, are absorbed, and give our patients that array of symptoms so appalling to the humane surgeon; for they speak of septicemia. Hence my objection to illustrations showing the cylinder without "the packing," when it is true that the supporting tissues play an important part in the diseases of the tube supported.

I know the question may arise, Is not the rectum a receptacle for feces, and always distended by the same? I reply, it ought not to be, and physiologically. As soon as the contents of the sigmoid flexure descend into the rectum, there is, or ought to be, at once a desire to evacuate the same; and if for any reason these parts are insensible to the presence of fecal matter, it shows a lack of tone which borders on or may result in disease; for, in a healthy condition, if the promptings of nature are not heeded, the fecal substance will be returned, by a reverse peristalsis, to its proper storehouse, the sigmoid flexure. Fecal substance bears the same relation to the rectum that urine does to the urethra.

O'Biern has demonstrated, by numerous explorations in the human subject, that under ordinary conditions the rectum is contracted, and contains neither feces or gas. Every surgeon knows that the finger can seldom reach any thing; but pass a tube up to the constricted opening between the sigmoid flexure and the rectum, and you find a discharge of feces and gas. A better knowledge of the anatomy of the rectum will lead to a more

perfect understanding of the physiology of defecation, and at the same time give us a practical idea as to the causes of some of the more frequent maladies in this region. The first act in the force of defecation is the passage, by peristaltic contraction, of the contents of the sigmoid flexure of the colon, through the slightly constricted portion of the bowel, into its dilated portion below. The fecal substance does not remain in this portion of the rectum; but, in obedience to the contraction of its muscular coat, it passes into the lower portion, assisted by the action of the abdominal muscles and diaphragm. The circular and longitudinal fibers contract, the former lessening the diameter of the tube, while the latter renders it shorter and more nearly straight. The internal and external sphincter present a certain amount of resistance to the discharge of feces, more particularly the external, which is much more under control of the will. The dilatation of the anus is facilitated by the action of the levator-ani muscle, which arises from the posterior surface of the body and ramus of the pubis, the inner surface of the spine of the ischium and the fascia between the two points, passes downward, and is inserted into the median raphe of the perineum and the sides of the rectum, the fibers uniting with those of the sphincter. By the powerful action of this voluntary muscle the anus is drawn forward, the sphincter relaxed, and the rectum more or less supported; the floor of the perineum is pressed outward, the anus dilated, and the sharp bend in the lower part of the rectum is brought more in line with the rest of the canal.

Any thing which disturbs the normal physiological processes here described may act as an exciting cause of a pathological condition. Usually the first step in the downward road which leads to an almost unfathomable amount of suffering and disease is a failure to heed the signal of nature that the bowels should be evacuated. A retention of fecal substance in the rectum (where it does n't belong), or its return by reverse peristalsis to the sigmoid flexure will, in either instance, cause irritation and congestion, which may result in hemorrhoids, abscess, fistula, irritable ulcer, etc. Thus, neglect of a duty we owe

nature may be, and often is, the first step in the highway of disease, leading to a point in life's journey where the physical no longer nourishes and regulates the mental, where reason fails to control temper, the individual often becoming disgusted with all mankind, himself included. Regular and unconditional attention and obedience to nature's demands should be given with more fidelity than a business man heeds a notice that his paper is to be protested in bank; for in the latter instance creditors near and far would rush in and destroy his financial hopes; whereas, in the former case, a liver, a stomach, a heart, a pair of lungs, or other viscera, having labored long and faithfully to ward off the approach of disease, subsisting meantime on blood poor in albumen and red corpuscles, are compelled to go into pathological bankruptcy when blood from which bile, gastric juice, and lymph are to be formed comes to their respective laboratories loaded with fecal juices absorbed from the rectum. Certainly the researches of Flint on the subject of rectal alimentation should teach us that substances retained in the rectum undergo absorption, if they are soluble; and if not, their mechanical influence is bad enough. A fecal accumulation, if insoluble, by its pressure retards the return of blood through and produces congestion of the hemorrhoidal veins, and the sphincter muscle, being put to extra duty in retaining the mass (like the biceps muscle of the blacksmith), becomes developed much out of proportion to the muscles involved in expulsion, and we have a most frequent source of chronic constipation. These inordinately developed sphincters have caused the use of purgative pills enough in the past, could they be showered from the skies, to maintain a hail-storm over the entire American continent for several days. Says Prof. Goodell: "If disease breed from bad drainage and defective sewerage from without the body, how much more from bad drainage and defective sewerage within the body. Excretions retained in the body ferment and decompose. The pestilential gases thus generated dissolve nerve-centers and paralyze the action of vital organs. Here cause and effect aid and abet each other.

Let us inquire into some of the causes of all this bad doing which results in the production of so much invalidism. "Probably," says Goodell, quoting from another author, "no single cause has had so much influence in producing the peculiar delicate condition for which women living in the country and in small towns in America are notorious, as the discomfort, inconvenient, and frequent repulsiveness," and adds, "indecent exposure of their closet accommodations." In the teeming tenement houses of our large cities there is usually but one closet, and that is invariably a cesspool, wet and foul, reeking with filth, poisoned by noisome stench, defiled by lewd couplets or by obscene cuts, indecent from their partitions and wide chinks, or from being pre-occupied by one of the opposite sex. Under such conditions what woman can avoid schooling herself into the habit of resisting the evacuation of her bowels? Further on he adds, in his own practical way, "Where in the country, and for that matter in cities also, is not to be found the privy made up of rough boards rudely spiked together, with cracks wide enough to destroy all privacy; with a door without a bolt, and generally hanging by one hinge; with crescent-shaped hole for a window; and with its sole article of furniture a barrel of rasping corncobs? When is it even sheltered from the rude blasts of winter, or not poisoned by noisome stench, acrid vapors, and unclean flies? After such an unsightly but truthful picture, can we wonder that the calls of nature are looked upon as grievous dispensations of Providence, hateful duties which are to be put off until driven to them by sheer necessity, which knows no law?" The title of doctor means teacher, and no feeling of delicacy should deter us from teaching, whenever occasion presents, that water-closets should be so arranged as to invite rather than repel.

Another cause of rectal disease, and one which, in my judgment, is not sufficiently dwelt upon by our authors, is a too hurried effort at defecation. And can we blame people for not remaining longer in such closets as Goodell has described? Some people, from hurry of business, others from habit, as soon

as seated to evacuate the bowels bring to bear all the power of the diaphragm and abdominal muscles. They have not the time to wait until involuntary and voluntary muscles relax, but rather force the fecal mass (often containing seeds of fruits with sharp edges) against the resisting involuntary sphincter. This inordinate *vis a tergo* as often retards as expedites the matter; for human muscle, like human character, resists force; and in the case of the muscles under consideration, if overwhelmed by violence, many times yield at last at the expense of their elasticity, the destruction of the tonicity of the hemorrhoidal veins, mucous membrane, and especially the areolar tissue, "the packing" which fills the space between them; and if the accumulation of days, weeks, or months is to be thus forced through the rectum, regardless of the physiological process I have described, serious results will follow.

Gynecologists are busy looking into dilated vaginæ for lacerations of the perineum and cervix uteri. They find them in all degrees, from a small fissure to extensive gaping lacerations, extending from the external os high up, even above the vaginal attachment. At no distant day obstetricians will dwell with emphasis on the bad effects of women bearing down to the full extent of the powers of the diaphragm and abdominal muscles before there is full dilatation of the cervix. They will place this as a cause, perhaps, the most to blame of all. If the rectal surgeon would use Sims's speculum (under ether) after some of these monstrous masses of feces have been forced away, they would, in my judgment, find lacerations just as often as those referred to by the gynecologist, and with a chain of sequelæ quite as bad.

There are many other causes of rectal disease; as, for example, dysentery, which is sometimes not the cause, but the result of carrying a large quantity of fecal substance, thus retarding the return of blood through the hemorrhoidal veins, and producing a congestion which results in a rectitis rather than a colitis;\* imperfect digestion, disproportion between the nitro-

\*The virgin uterus, which has a slightly forward inclination normally, may become permanently anteverted, as a result of fecal accumulation in the rectum.



genous and carbonaceous, especially the incomplete elaboration of the nitrogenous compounds by the liver; in short, any thing which disturbs the proper preparation of material for constructive assimilation, or retards in any manner destructive metamorphosis and elimination of the products of the same.

*Diagnosis.* Van Buren declares: "Accurate diagnosis in our profession is the unerring test of ripe scholarship and thorough education; and, of all the qualities of a physician, it is that which most certainly insures success in curing disease, and consequent reputation." "Imperfect diagnosis, in truth, is a very common fault, especially so, perhaps, in the class of ailments which we are studying; for their seat, in the decency of nature, is hidden away, as it were, in a recess of the body, and nature modestly is averse to their exposure. Moreover, our means of exploration had been, until recently, very defective, entirely insufficient to overcome satisfactorily the jealous sentinelship of the sphincter-ani muscle."

Surgeons have heretofore been too timid in their explorations of the lower bowel. Mr. Allingham says "he has (following the advice and practice of Prof. Simon) introduced his entire hand into the rectum, and saved lives by so doing. He cautions, however, that the hand should be small, and the patient fully relaxed by anesthesia."

In another place Van Buren declares that "the practical surgeon has experienced a want of full success in exploring the rectum with the speculum ani in general use. The sphincter-ani is a powerful muscle, and resists dilating power, except under the profound influence of chloroform or ether; and the use of the speculum ani, except under the anesthetic influence, generally occasions a great deal of pain."

Anesthesia then is a most valuable aid in rectal explorations. Under anesthesia with a Sims instrument\* we can see and at the same time introduce the finger by its side; and no bougie can compare with a good long, slender, well-trained finger. This

\*I mean an instrument that displays the walls of the rectum by distending with air, as Sims first demonstrated. This includes several by Simon, Van Buren, and others.

sentinelship of the sphincter is of vast importance, and the removal of this sentinel from duty by anesthesia and full dilatation will materially aid in diagnosis, and positively cure several serious diseases for which cutting the sphincter was formerly the remedy. Dilatation of vesical and anal sphincters has been the means of success in curing many diseases of the bladder and rectum otherwise unattainable.

In finding what is the real pathological condition in a given case of rectal disease, there are five things absolutely essential, good light, proper position of the patient (varying in different cases), anesthesia, a Sims speculum, and an abundance of patience and thoroughness. There are many patients who have undergone operations without cure because of the neglect of one or more of the essentials referred to. My experience furnishes abundant proof of this assertion. One fistula, where there are several sinuses, is often cut without anesthesia and left without after treatment. This not infrequently heals, while the remaining tracts continue open, and either form fresh outlets or call into use those which had been previously partially closed. Thus, I have known instances where a patient had been discharged as cured not less than three times.

"Irritable ulcer has been pronounced cancer, and the patient doomed to a miserable existence, a prey to quacks and pile specialists," when chloroform and a good "stretching" with a vaginal speculum would have performed a cure. Other instances might be given, but it is not necessary.

Why surgical authors continue to picture the almost worthless anal specula of the past, I can not understand, especially when Prof. Simon has demonstrated the expediency of introducing the whole hand and arm into the rectum, thus showing that its capacity is equal to that of the vagina. For my part, I should want no better set of rectal instruments than the specula and retractors of Prof. Simon intended for the vagina.

It may be asked, is there any danger of destroying the contractility of the sphincter? I answer, no, if we but recollect that human muscle, like human character, can be coaxed, not forced



to yield. Moreover, it is absolutely necessary, in order to cure some of the forms of rectal disease (fistula, for example), to get rid of the ceaseless activity of the anal sphincter; and I have in some cases of fistula kept it as quiet by a thorough stretching (under ether) and a subsequent packing of the rectum with cotton as I ever did by cutting.

In conclusion, I would urge—

1. That the rectal anatomist dispense with his drawings exhibiting the rectum distended, or borrow the contracting power of Thomas and add one with it closed.

2. I would urge the rectal surgeon (for purposes of diagnosis and operation) to utilize the expansive genius of Sims in throwing the rectum open.

3. I would urge humanitarians to insist that at least one third as much time be given to unloading the alimentary canal that they take in filling the same.

4. I believe it is the duty of philanthropists and sanitarians, especially such as are so anxious to serve on boards of health, to see that water-closets invite, not repel. Health-boards should inspect every store, factory, and place of business, to see that clerks and employes, male and female, have such privacy and privileges of access to closet accommodations as the importance of the case demands.

5. I would beseech of doctors, philanthropists, sanitarians, and all others interested in humanity to teach on all proper occasions the pernicious consequences of carrying a load of feces in the bowel until it is absorbed and its odor escapes from the emunctories of the skin, or adds to the not infrequent unpleasant aroma of the human breath.

INDIANAPOLIS, IND.

## DEAFNESS AMONG SCHOOL-CHILDREN.\*

BY J. P. WORRELL, M.D.

I feel some hesitation in asking the attention of a body of physicians engaged in the general practice of medicine to a paper on diseases of the ear, for I share, with those who have much occasion to witness the little attention extended by the majority of physicians to this subject, the opinion that a lamentable indifference exists toward the diseases affecting the organ of hearing, and that scant consideration is likely to be awarded any communication on this subject. It is indeed one of the anomalies of medical practice, whose devotees are honored by their active interest in almost every matter that concerns the welfare of the human body, that an organ upon whose integrity depends the performance of a function of paramount importance to human happiness, and one which, if destroyed, cuts off from the intellect its most important avenue of communication with the outside world, an organ which, moreover, by its intimate relations to the vital organs, becomes not infrequently a menace to life, is almost entirely ignored.

For this, perhaps otologists are quite as responsible as those engaged in the general practice of medicine. Without discussing, however, where the responsibility should lie, allow me to express the hope that, in the light of the great progress being made in this department of medicine, all who hear me may experience a growing interest in this important branch of medical science.

There is to be considered in this connection, also, the attitude of the people toward the profession in relation to these diseases, growing out of the lack of interest shown by physicians, and the little effective aid which the latter have been accustomed to afford in cases of diseases of the ear. This has resulted in a lack of confidence in the resources of medicine to

\*Read before the Indiana State Medical Society, May, 1883.

produce any material benefit, either in preserving or restoring function, and a consignment of cases of diseases affecting the organ of hearing, especially in their earlier stages, to the care of domestic medicine. You, who are at all acquainted with the present resources of medicine in this department of practice, know that whatever grounds there may have been for this feeling in the past that they exist no longer, and that to-day no field of practice affords more gratifying evidence of the power of judiciously directed treatment to preserve and restore function and to arrest the sad consequences which neglected disease so certainly brings about.

To make this known to the public by disseminating correct notions regarding the ear, and insisting upon proper treatment in disease, are duties devolving upon us and calling for the same zeal and solicitude that are extended to other organs and their diseases.

I now invite your attention to the subject that I have selected for my present paper—that of the frequency of impaired hearing among children, as determined by tests made of the acuteness of hearing of school-children. Until recently no examination for such purpose had been instituted, and whatever estimates had been made of the extent to which aural disease exists were based upon conjecture only. The records of public institutions or private practice afford but little data upon which to base conclusions, as comparatively few of those having aural disease apply to the profession for treatment.

For the purpose of securing, therefore, more reliable data, tests have now been made by various observers of large numbers of children. Judging from the results of these examinations, we must conclude that we have greatly underrated the number of cases of aural affection. The proportion of defective ears is indeed startling, and gives an increased importance to diseases affecting this organ.

Weil, of Stuttgart, who examined five thousand nine hundred and five children in the schools of that city, representing all classes and ages, has published elaborate tables showing the

pathological conditions, as well as others setting forth the number of ears with impaired hearing, and degree of impairment. These tables are very valuable, but are too extensive to admit of introduction at this time, and any partial quotation would fail to give a correct idea of their thoroughness or of the results obtained. Concluding, from the result of his tests, that twenty to twenty-five meters is the normal hearing distance for a whisper in quiet localities, and marking none as hearing badly who can distinguish the whispered words over fifteen meters, he finds an unexpected number of defective ears.

Of the results obtained in the various schools, I select two as representing the extremes. One in which there were three hundred and twenty-nine children examined, fifty-three, or 16.1 per cent heard badly, while in the other over 30 per cent heard badly with one or both ears. These tables indicate that the younger children hear better than the older ones. One interesting fact is observed, in that the High College, with a high percentage of cases with slight defect, has only one boy out of the entire number of one hundred and twenty that has a high degree of impairment, he hearing at ten meters. Let me warn you against concluding that this indicates that the hearing of the individual cases has improved—spontaneous improvement of hearing is not so common. The true reason of this low percentage here is probably that suggested by the author, that the children having high degree of impairment do not pursue their studies into the higher classes.

One other observer, Reichard, of Riga, examined one thousand and fifty-five children with the watch, finding 22.2 per cent who heard it badly.

These results, as obtained in Europe, show so high a percentage that we are disposed to ask whether there are special causes to produce it, and whether in our own country, with different and possibly better social conditions, we might not find better exhibits. As yet we have no considerable numbers from which to draw conclusions. The only examination besides my own, of which I have any information, being those of five hun-

dred and seventy children of New York, made under the direction of Dr. Sexton, to whom I am under obligations in the preparation of this paper: of these children, only 13 per cent are recorded as hearing badly, a manifest improvement upon the result published of the German schools. These children represent, probably, also the humbler classes, among whom the percentage is likely to be high. We are, therefore, further encouraged to hope for better showing in this country than we find abroad. I think this difference, however, is rather due to the method of examining adopted, which would seem to require a higher degree of impairment before being marked as hearing badly. The plan employed by him was to have the teacher, with whose voice the pupil was familiar, make the tests. The child was placed twelve feet from the examiner, who, by raising and lowering the voice, determined the acuteness of hearing. By this method probably a lower percentage of defective ears is found than in the method pursued by Weil, in which the whispered voice was employed. Even, however, accepting the result as representing the correct percentage, we observed that it is high, and that there is a deplorable prevalence of aural troubles among our children.

Thus far I have given you the results of the labors of others in this line of investigation, so far as they have come to my own knowledge. I now ask your attention to the results of a series of examinations which I have instituted in the schools of my own city. As yet the number is not large, for I have not had time to complete my investigations. Those which I now present suffice, however, to furnish a contribution to the study of this subject.

In making my tests I used the whisper, modulating it according to the size of the room, determining the necessary force by the ear of the teacher, who is placed at the position afterward to be occupied by the children under examination. The child is then placed at her side, in the corner opposite the examiner, with one ear covered by the hand while the other is being tested. The presence of the teacher encourages the child,

and enables her to satisfy herself that the tests are reasonable, and that the results accurately determine the condition of the hearing. The child then repeats the simple words or sentences uttered by the examiner. When these are not heard at the full distance the examiner advances, until the words, repeated with unvarying force, are heard and repeated by the child. If the child hears at less than normal distance, the relative acuteness is established by finding the ratio between his hearing distance and the normal distance. Thus, with voice modulated for forty feet, if it be heard only ten feet, the hearing power may be marked as one fourth of the normal.

The rooms in which my tests were made give a distance of thirty-seven feet between examiner and child. The school selected for these tests is situated in a quiet, healthy neighborhood among a prosperous people, affording children that, in regard to health and hygienic surroundings, are quite up to the average. The school is divided into ten departments, with age ranging from six up to fifteen years, and contained at the time of my examination three hundred and ninety-one children. Among the children there is always a large number with manifestly impaired hearing, reaching, perhaps, as high as fifty per cent. Among Weil's tables I find some schools ranged as high as seventy-five per cent. At any rate it appears that less than one half have typically perfect hearing. Notwithstanding this fact, in my examinations none are marked impaired until I find it necessary to step forward to a greater or less distance in order to be heard.

According to my tests, made after the manner above described, I obtained the following results:

Individuals having both ears impaired, . . . . .	56
Individuals having one ear impaired, . . . . .	42
Total, . . . . .	98
Percentage of whole number examined, 25.	

Taking only those who may be said to have comparatively high degree of impairment we find:



27	ears	that	hear	from	16	to	20	feet	inclusive.
22	"	"	"	"	11	to	15	"	"
24	"	"	"	"	6	to	10	"	"
4	ears	that	hear	5	feet,	1	hears	4	feet, 11 hear 3 feet, 1 hears 2 feet, and 1 hears 1 foot.

Had two ears, having the worse deafness, occurred in the same individual, it would have been thought impossible for the impairment to have been overlooked, and yet we find that, with one exception, none were known by the teachers to have impaired hearing. As the hearing of the individual depends upon the acuity of his better ear, the following records will be interesting: With the better ear, hearing distance not above fifteen feet, there are nineteen individuals. Then there is one with acuteness of the two ears three feet and five feet respectively. Another hears at three feet with each ear, while another hears at one foot with one ear, and at four feet with the other.

The last one—though hearing with the better ear an acuteness of four feet, thus being better than the one whose record immediately precedes—was the only one known by the teachers to be deaf, and this arose from the circumstance that the boy had recently had scarlet fever with unmistakable symptoms of ear disease. In this connection let me refer to some observations made by Weil as to the frequency of impaired hearing after this disease. He examined a school of about eight hundred and fifty pupils, of which one half had had scarlet fever, and discovered among those who had had the disease a somewhat smaller percentage of impaired ears than among those who had not suffered from that disease. So far as I have had opportunity to make similar inquiries his results are confirmed. Of course, we should find, if the examinations were made among a sufficiently large number, that scarlet fever adds its quota to the aggregate, but we learn from these figures what I believe will be confirmed by further study, that too much importance has been given to scarlet fever as a factor in contributing to the number of diseased ears. The amount of attention given to this disease as a cause of impaired hearing is owing rather to the sad and extremely disastrous results in

exceptional cases than to their frequency, and is altogether out of proportion to its actual importance as a causative factor in aural disease.

One more remark, and I am done with this school. It seemed to me that those children with high degree of deafness were among the older ones in the department to which they belonged. At my request the average age of the pupils and the respective ages of those with high degree of impairment were furnished me, and, from the comparisons which I made, I infer that deaf children are so retarded in their studies that they are compelled to remain in a lower grade at an age at which other children are transferred to a higher one.

I have also examined one hundred children in St. Ann's Orphan Asylum. Here I was able to make ocular examination of the tonsils and ears, and obtain the children's history. From the data thus obtained interesting deductions may hereafter be made. At present I would again call particular attention to the fact that the attention of the teachers, or the pupils themselves, had not, as a rule, been called to the condition of the ear.

Children examined, . . . . .	100
Both ears impaired, . . . . .	16
One ear impaired, . . . . .	11
Total, . . . . .	<hr/> 27

Of this number but two were supposed to be deaf, though in fact there were five with very high degree of impairment in both ears. Of thirteen who reported having had earache at some time, four had impaired hearing; of sixteen who had had scarlet fever, three had slight impairment, and nine with deafness give a history of otorrhea, leaving eleven who had no recollection of any symptom referable to the ear. If to these we add the four who had had earache, but who suspected no diminution of their hearing, and the three scarlet-fever cases, which were all only slightly impaired, and unrecognized, we have eighteen in all who had not thought seriously about the condition of their ears.



From this examination of four hundred and ninety-one children we learn that deafness is much more frequent than is generally thought. We observe also that the slighter degrees of impairment, if unaccompanied by obvious disease, are uniformly overlooked, while even those with high degrees of impairment are known only in exceptional instances. When one ear only is defective, it is but by the veriest accident that the individual is made aware of his condition. My observations also give ground for believing that the children with high degree of impairment are usually among the older children, as already mentioned. It is a point of some practical importance to observe that, in consequence of the fact just stated, they occupy that part of the room where the highest seats are found, usually the back part, where the evil results of their defect will be most sensibly experienced. I need not suggest the propriety of seating the children with respect to the impaired hearing, and by special attention in other ways to compensate the child in some degree for the disadvantages under which he labors. This implies that the defect should be known, and for this purpose I would urge that a test of the hearing of the children be required at the beginning of every school term. This may easily be done by the teacher herself after the method already described. If this be done, numerous cases of supposed dullness or inattentiveness will disappear, and be reported in their true place as cases of deafness.

It is doubtless a surprise to you, as it is invariably to teachers, that so many unsuspected cases of deafness are found; but it is easily explained by the fact that the ordinary tone of voice is much louder than necessary for the normal ear to hear, and that if any slowness in comprehending what is said be noticed, it is the custom to refer it to concentration of mind, heedlessness, willfulness, or other mental state.

It will be a great boon to these children if the true cause of this listlessness and dullness be discovered. Under the most thoughtful management they are placed at great disadvantage and do not benefit by the instruction given in the school as do

those with unimpaired hearing. This results in their obtaining low averages, and retention in the lower grades. Ultimately discouraged they quit school before reaching the higher grades.

It is not the purpose of this paper to enter into discussion of the special forms of disease or their treatment; but I can not permit to pass this opportunity of urging physicians to make a test of the hearing in every case of pain in the ear; also whenever they find any throat affection; for in this latter trouble, particularly when there is enlargement of the tonsils, impairment of hearing is extremely frequent. Let them regard these frequent and trifling affections more seriously than they are accustomed to regard them, and they will have the happiness of preserving more ears than their utmost efforts in cases of scarlet fever could do.

One more thought regarding the cases found in my examination, and I am done. It will stimulate your interest to know that of these, probably a great majority could have their hearing entirely restored, or greatly improved; some after somewhat prolonged treatment, and many doubtless by a single treatment. It is not necessary to enter further into this phase of the subject, for if you take sufficient interest to interfere in behalf of any of these afflicted you will readily find the way to acquaint yourselves with the methods of treatment. To arouse such interest, has been the object of this paper, and any success in promoting this end will amply reward me for my labor spent.

TERRE HAUTE, IND.

## Reviews.

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**A Practical Treatise on Impotence, Sterility, and Allied Disorders of the Male Sexual Organs.** By SAMUEL W. GROSS, A.M., M.D., Professor of the Principles of Surgery and Clinical Surgery in the Jefferson Medical College of Philadelphia; formerly President of the Pathological Society of Philadelphia; Author of a Practical Treatise on Tumors of the Mammary Gland; Fellow and formerly Mütter Lecturer on Surgical Pathology in the College of Physicians of Philadelphia; Fellow of the Academy of Surgery of Philadelphia, etc. Second edition, thoroughly revised, with sixteen illustrations. Philadelphia: Henry C. Lea's Son & Co. 1883. 8vo. Pp. 176.

Something more than two years ago the first edition of this book was given to the profession, and now comes the second edition, in the preface to which the author announces that the previous large issue being exhausted he is induced to revise his work and send forth the present edition in obedience to a professional demand. The work has been received with marked favor, and is worthy of it, as there is embodied in its few pages a clear portrayal of certain serious lesions of the reproductive organs of the male, and the recent and most approved methods of treatment. It is a matter of some moment to interested parties to have this instruction presented in compact form and clear and perspicuous style, disconnected from the consideration of all other ailments, and to this status Dr. Gross has brought his little work.

The first chapter is on Impotence, and opens with the author's adhesion to the views of Lovén that the erection of the penis is due to active dilatation of the arterioles of the cavernous and spongy bodies, and not to a nerve stasis of blood produced by constriction of the veins. The whole subject of impotence is

treated of under the heads of Atonic Impotence, Psychical Impotence, Symptomatic Impotence, and Organic Impotence.

Sterility is the subject of the second chapter, and it has three phases—Azoöpermism, Aspermatisim, and Miremission.

The fourth chapter is devoted to Spermatorrhæa, and the fifth and last to Prostatorrhæa.

The author gives proper consideration to the work of other writers, but in most instances teaches the doctrines he has verified in his own experience. He reports thirty-five cases in a concise and explicit manner to illustrate points that he desires to make prominent, and he succeeds in being clear and intelligent. Perhaps a practitioner of large experience might fairly claim that Dr. Gross's book carries with it the idea that these cases of disorder of the male sexual organs of which he writes give the competent medical man less trouble in their management than such experience will warrant; but as this is a condition common to most medical books of a practical character, it should not be raised as a special objection to this volume. J. F. H.

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**A Treatise on Therapeutics, COMPRISING MATERIA MEDICA AND TOXICOLOGY, WITH SPECIAL REFERENCE TO THE APPLICATION OF THE PHYSIOLOGICAL ACTION OF DRUGS TO CLINICAL MEDICINE.** By H. C. WOOD, M.D., Professor of Materia Medica and Therapeutics, and Clinical Professor of Diseases of the Nervous System in the University of Pennsylvania; Physician to the Philadelphia Hospital; Member of the National Academy of Science, etc. Fifth edition, revised and enlarged. Philadelphia: J. B. Lippincott & Co. 1883. 8vo. Pp. 740.

When any one, about to engage in a task of moment, gives evidence that he not only has a clear perception of the end he is seeking to attain but also that he measures with substantial accuracy the difficulties he has to surmount in reaching his goal, they may be counted as the best harbingers of profitable success. This merit Prof. Wood disclosed to a marked degree. He recognized that "the shelves of private and public libraries

are groaning beneath their ever-increasing loads," and that "there are a number of excellent treatises upon *materia medica* and therapeutics," and yet his duties in the lecture-room and ward of the hospital, as well as his efforts at original research, made him keenly feel that something more was wanted. In seeking to find this something he admits that the twenty centuries of historical medicine has furnished but little else than empiricism, or, if it be a softer phrase, clinical experience, as the foundation of therapeutics, and that he must gather his grain by still further gleaning the same field, frankly acknowledging that "it is evident that this is not a new path, but a highway already worn with the eager but weary feet of the profession for two thousand years." Where a therapeutic fact has been established, tested, and found without blemish by empiricism, it is as valuable as if obtained by direct scientific experimental investigation, but, the author asks, "What has clinical therapeutics established permanently and indisputably? Scarcely any thing beyond the primary facts that quinia will arrest an intermittent, that salts will purge, and that opium will quiet pain and lull to sleep." "Experience is said to be the mother of wisdom. . . . In the past there is scarcely a conceivable absurdity that men have not tested by experience, and for a time found to be the thing desired; in the present, homeopathy and other similar delusions are eagerly embraced and honestly believed in by men who rest their faith upon experience. Narrowing our gaze to the regular profession and to a few decades, what do we see? Experience teaching that not to bleed a man suffering from pneumonia is to consign him to an unopened grave, and experience teaching that to bleed a man suffering from pneumonia is to consign him to a grave never opened by nature. Looking at the revolutions and contradictions of the past, listening to the therapeutic Babel of the present, is it a wonder that men take refuge in nihilism, and, like the lotus-eaters, dream that all alike is folly, that rest and quiet and calm are the only human fruition?"

Notwithstanding these great measures of chaff, the author recognizes that there are small measures of grain hidden in the

mass, and it is the task he undertakes to separate the one from the other. While acknowledging both the errors and the value of clinical-experience therapeutics, he asserts his faith in the good that has lately come and in the promise of the more that is to come from experimental pharmacology, and this in spite of Niemeyer's assertion that experiments made with medicaments upon the lower animals or on healthy human beings have, as yet, been of no direct service to our means of treating disease.

The general plan of the work is to treat of drugs first, and then of remedies that are not drugs—forces, caloric, and electricity—and these are followed by a brief appendix on the art of prescribing. An introduction of eight pages gives an outline of the author's intentions and a catalogue of definitions. In speaking of things that may modify the effect of any management of the ailing, the author presents this: "Idiosyncrasies seem at present to be beyond law. They are often very remarkable, and a knowledge of them is most important for the practitioner. Thus a relative of the author's is thrown into the most alarming fainting-fits by eating even so much butter as would be ordinarily used as a dressing for vegetables at dinner."

Drugs are classified by their clinico-physiological qualities, and while the description of the drug itself is short it is sufficient, and the therapeutic value of it is clearly set forth according to the author's views.

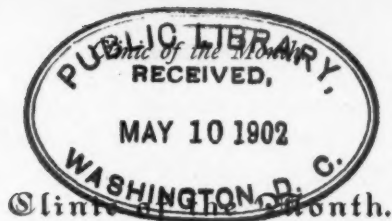
As the reader would expect, from Prof. Wood's detailed ideas above, there are many departures from the conventional method of prescribing remedies and of the estimated value of their effects, and this should be esteemed a leading merit of the book, and with other good qualities should commend it as one of the best of its class.

There is a full general index and an equally full index of diseases wherein the medicines applicable to the relief of each disease named are enumerated under it.

The publisher has issued a good specimen of his art.

J. F. H.





PICRIC ACID AS A MEANS OF DISTINGUISHING ALBUMEN FROM PEPTONE.—George Johnson, M.D., F.R.S., writes, in the British Medical Journal, as follows:

Among the few objections which have been raised to the use of picric acid as a test for albumen in the urine, is the statement that it forms a precipitate or coagulum with peptone, which is indistinguishable from that which it gives with albumen. If this statement were in accordance with facts, and if peptone be ever found in the urine, the use of picric acid as a test might be a source of confusion. The attention of my son and myself having been directed to this subject, we find that nothing can well be easier than to distinguish the precipitate which picric acid forms with albumen from that which it gives with peptone. We have experimented in the usual way, both on peptonized white of egg and on fiber of meat. The white of egg and meat fiber respectively were digested for some hours at a temperature of from  $90^{\circ}$  to  $100^{\circ}$  Fahr. in water acidulated with hydrochloric acid, and mixed with Bullock's pepsina porci. The liquid was filtered, and freed from the small amount of albumen which it was found to contain by boiling and a second filtration. We thus obtained a clear liquid peptone, which was coagulable neither by heat nor by nitric acid. On the addition of a saturated solution of picric acid there was an abundant gelatinous precipitate of peptone, *but this precipitate was immediately and completely redissolved by heat below the boiling point, and reformed on cooling.* Further, we found that the peptone precipitated by picric acid was completely dissolved by the addition of a few drops of nitric acid. Here, then, we have two simple and certain tests, by means of which albumen may be distinguished from peptone. The coagulated albumen, which is thrown down by picric acid, is always rendered more opaque and coherent by heat, and is insoluble in nitric acid; on the contrary, peptone which is thus coagulated is readily dissolved both by heat and by nitric acid. The use of picric acid as a test, therefore, so far from tending to the confusion of albumen with peptone, will be found to be the simplest and most effectual means of distinguishing these two compounds, and even of separating them from

each other when they co-exist in the same liquid. If the mixed precipitates formed with picric acid are heated, and then placed on a warm filter, the dissolved peptone will pass through, while the coagulated albumen remains on the filter.

Another means of separating dissolved albumen from peptone is that before referred to—viz., coagulating the albumen by heat, and then separating it by filtration.

It has been asserted that peptones occur in the urine. This may be a fact, but with our present knowledge of this subject I feel some doubt as to the truth of the statement. My conviction is that if it ever occurs it must be a rare and exceptional phenomenon. Within the last two years, during which, at the suggestion of my son, I have used picric acid as a test for albumen, I have tested with it some hundreds of specimens of albuminous urine; and although I have not always applied heat to the urine after adding the picric acid solution, I have done so in a large proportion of cases, and in not one single instance have I found that the precipitate formed by picric acid has been either wholly or partially redissolved by the application of heat, but, on the contrary, it has invariably been rendered more dense and opaque. In almost every instance, when I have not heated the specimen after coagulation by picric acid, I have added nitric acid to another portion of the same urine, and have thus shown the presence of albumen, except when the amount of albumen present had been too small to be detected by the nitric-acid test—most of these being the urines of convalescents from acute albuminuria in which, shortly before, the presence of albumen has been indicated by heat and nitric acid. Now, since peptone is not coagulable by nitric acid, it is clear that when the urine is found equally coagulable by nitric and by picric acid, the case is not one of peptonuria. And I infer that among these numerous cases there has not been one in which the urine has contained peptone.

It would seem *à priori* probable that peptonuria would be as rare a phenomenon as the so-called chyluria. This, however, is certain, that, with the modifications of the picric acid test to which I have referred, there can in future be no difficulty in detecting peptonuria when or if it does occur, or of distinguishing it from the far more common condition, albuminuria.

It has been customary of late to speak of various kinds of albumen; but this surely is not the language of scientific chemistry. There are various albuminoid bodies (such as, for instance, fibrine, casein, etc.) but, of albumen, there is but one kind, whatever may be its source.



The albumen which is found in the urine is a derivative of blood-serum, and is always one and the same, although its behavior with re-agents will differ in accordance with the state of combination and of admixture in which it exists. Thus, albumen in alkaline, or in some neutral urines, is not coagulable by heat; and, again, the presence of a small quantity of a mineral acid, or a larger quantity of a vegetable acid, results in the formation of an acid compound of albumen in which no amount of boiling will cause coagulation. The common practice of adding acetic acid to urine before applying heat is likely to mislead by the formation of such an acid compound not coagulable by heat. A small quantity of albumen, therefore, often escapes detection by this fashionable but fallacious method of testing. On the other hand, picric acid has not only the advantage over heat and nitric acid of being so sensitive that it will indicate the presence of albumen in a specimen experimentally diluted beyond the point where the other tests fail to detect it, but it acts equally well in acid, neutral, and even in alkaline urines; for, although the coagulation of albumen by picric acid is prevented by caustic alkalis, I have not once, in examining some hundreds of specimens, found it necessary to acidulate the urine before adding the picric acid. Another advantage of the test is, that it consists of a single cheap substance, which is not liable to undergo chemical change by being kept either in a solid form or in solution; and, without making seemingly invidious comparisons with other tests which have recently been recommended, this, at any rate, may be said of picric acid, that in its action it is singularly free from sources of fallacy. In fact my estimate of the value of picric acid as a simple, certain, and most delicate test for albumen in the urine has risen in proportion to my increasing experience of its efficacy. I confidently predict that it will soon come into general use; and one good result of the common employment of so trustworthy a test will be, that the next generation of practitioners will see fewer cases of incurable degeneration of the kidneys than daily come under our notice at the present time. For the history of a large proportion of these cases is, that some ten, fifteen, or it may be twenty years ago, there was an acute affection of the kidneys with albuminuria, which was supposed to have passed away; but the complete freedom of the urine from albumen was not ascertained by trustworthy and frequently repeated tests. The recovery was incomplete; an unsuspected latent disease has been insidiously making progress, until at length some of the many distressing results of degeneration of the kidneys bring the patient again under

medical observation, when it is only too obvious that, not only have the kidneys in the course of years become incurably diseased, but that many other organs and tissues have become involved in the morbid process. There is, then, little more to be done than to watch the progress of the disease to its inevitably fatal result.

The calamitous results to which I have referred may, in a large proportion of cases, be prevented by the careful watching and treatment of recent cases of albuminuria, with a determination on the part of the practitioner that the patient shall not be declared convalescent until the most delicate available test fails to detect the smallest trace of albumen in the urine at any period of the twenty-four hours, and for many successive days.

It can not, in my opinion, be too emphatically declared or too generally known that, while a fraction of a grain of saccharine matter per ounce is a normal constituent of all urines, the smallest trace of albumen is abnormal and pathological; and, if permanent, it has in it the germ of future trouble, and, it may be, of irreparable disaster.

**THERAPEUTIC MEMORANDA—NITRITE OF AMYL AND NITRO-GLYCERINE IN UREMIC ASTHMA.**—Dr. A. Sheen (British Medical Journal), speaks of nitrite of amyl and nitro-glycerine in uremic asthma as follows: "The brief notes I give below illustrate the value of nitrite of amyl and nitro-glycerine in one of the sudden and distressing, though perhaps rare, phases of chronic Bright's disease, viz., uremic asthma. Nitrite of amyl, acting, probably, through the vaso-motor nerves, relaxes the arterioles, and thus reduces blood-pressure. As it is very volatile, on the score of economy and convenience, I always carry some of Martindale's capsules in my bag, and these are very handy for immediate use. Nitro-glycerine is said to have much the same action as nitrite of amyl, and, according to Dr. Mahomed, its great superiority over amyl lies in its gradual and more lasting effect, and the more convenient manner of prescribing it, and it can be taken regularly two or three times a day, or oftener, one minim of a one-per-cent alcoholic solution, being the usual commencing dose. It is also made up in chocolate tablets, each containing one hundredth part of a minim; but its action when given in this form is not so rapid as that of the alcoholic solution.

"M. P., aged 55, retired from business May 4, 1882. He had been ailing for two weeks, but had been about. He had noticed swelling of his legs toward night for two months, and his face had swollen occasionally for the last month. He had always been careless of his health, and if he got wet, an event which happened not infrequently, he would never change his clothes. He was taken suddenly ill in the evening while out walking, about a mile from home, and had to be taken home in a cab. On visiting him at 10 A.M., I found him sitting up in bed, gasping for breath, countenance distressed, and of a sickly, pallid hue. Pulse feeble; temperature 98°; tongue pale and sodden; expectoration frothy, with some little blood intermixed; moist râles over whole chest, back and front; urine abundant, clear, containing one fourth of albumen. At 2 P.M. I found his condition and posture unchanged; he could only speak a few words before he had to stop for breath. He inhaled three minims of nitrite of amyl (a capsule broken in a handkerchief). Within a few minutes his breath was easier, and he was able to recline in bed, for the first time since the attack came on, before I left the house. I then put him on nitro-glycerine, one hundredth of a minim thrice a day.

"May 5th. He was lying easily in bed, breathing quietly, and expressing himself as feeling quite well; he said he was only waiting till I came before he got up. I cautioned him unavailingly that his life hung by a thread, and that he could only hope to continue it by the strictest obedience. On the 6th he still remained in the same improved condition. The next day he refused to take any more medicine, but promised to stay in the house, a promise which he did not keep. On the 16th he had another attack, and died quietly within thirty-six hours, the urine being loaded with albumen.

TREATMENT OF FLOATING KIDNEY BY FIXATION.—We are informed that Dr. David Newman, of Glasgow, has performed for the first time in this country the operation of nephroraphy. The operation was performed in the following manner: The

kidney was exposed by a vertical incision in the right loin, immediately external to the outer edge of the quadratus lumborum, and extending from the lowermost rib to the crest of the ilium; the capsule of the kidney was opened, and stitched to the edges of the wound; and two catgut sutures were passed through the cortex of the kidney, the muscles, fascia, and skin, and secured externally by buttons. The patient suffered from severe symptoms, and was treated for several years without success; but, since the operation, the symptoms have entirely disappeared, and she has now almost recovered from the effects of the operation, which was performed three weeks ago. (British Medical Journal.)

PURULENT PERICARDITIS TREATED BY PARACENTESIS AND BY FREE INCISIONS, WITH RECOVERY.—By Samuel West, M.D., in the British Medical Journal.

A boy, aged sixteen, had a large pericardial effusion. The symptoms became so urgent that paracentesis was performed. Pus was obtained. Three days later paracentesis was again performed, and subsequently the pericardium was laid freely open, evacuated, washed out, and a drainage-tube inserted. The temperature never rose, and the boy recovered completely in five weeks, the only feature of interest being an attack of general urticaria, which came on about a week after the operation, and lasted three or four days. In support of the diagnosis, a case of Sir J. Risdon Bennett's was referred to, in which what was supposed to be mediastinal cyst was frequently punctured, but proved to be on *post-mortem* examination a case of chronic pericardial effusion. The points of clinical interest discussed were: (1) The absence of any special signs to indicate the nature of the effusion; there was no friction to be heard before the operation, or mill-wheel sound characteristic of hydro-pneumo-pericardium after the free incision; (2) The operation (which was by preliminary puncture by a small trocar and cannula, and subsequently by free incision), and the place selected for puncture, viz., the fourth intercostal space, immediately below the left nipple; (3) The amount of the fluid evacuated, viz., fourteen ounces by the first tapping, and about two quarts by the free incision; (4) A peculiar epigastric prominence, noticed before paracentesis, which disappeared after operation; (5) The attack

of urticaria; (6) The pulsus paradoxus, which was constant up to the time of the free incision, but ceased immediately after that. A short account was then given of the only other recorded case of incision of the pericardium for purulent pericarditis by Professor Rosentein, of Leyden, which also recovered.

THE STATISTICS OF PARACENTESIS PERICARDII. — Samuel West, M.D., writes to the *British Medical Journal* on this subject as follows :

The history of the operation was briefly related from its first suggestion by Riolan in 1649. Its practical introduction was traced to Dr. Rovers, of Barcelona, who operated successfully in two cases in 1819. In 1841 there was a remarkable series of cases in an outbreak of scurvy in Russia, in which the pericardial effusion was composed mostly of blood. Nine were operated upon and six recovered. In 1854 Trousseau's essay was published upon some cases of his own and of M. Aran, which revived interest in the subject. In 1866 Dr. Clifford Allbutt introduced the operation to this country, and it was performed by Mr. Wheelhouse and Mr. Teale. Rosenstein, in 1871, made a great practical advance in operating by free incision with drainage. A complete list of the recorded cases up to date was given in a tabular form, with the addition of several cases hitherto unpublished, making seventy nine cases in all. Of these, fifty-six had been in males, for which no reason could be assigned, and they had been uniformly distributed over the early ages of life. Phthisis and pleurisy had been associated with twenty-three cases, rheumatism with eleven, scurvy with nine, general dropsy with five, injury with three; in twelve cases there had been no associated disease. The fluid had been in fifty-eight cases serous, in twelve purulent, in nine bloody. The amount evacuated had been in forty-six cases less, in thirty-three cases more than a pint. It was not rare to evacuate as much as two or three pints. The largest quantities had been found in the scorbutic cases, and from one of these about ten pints had been evacuated. It had been sometimes observed that great relief was given by the withdrawal of one or two ounces, and that this had been followed by the absorption of the rest of the fluid. Dieulafoy's careful experiments had led to the selection of a place in the fifth left space, about an inch from the sternum, as the safest point for puncture. The following conclusions were drawn: (1) Paracentesis pericardii is not only justifiable, but an operation which may be safely undertaken with ordinary precautions, for only one case is recorded in which the opera-

tion was in itself fatal, and, with this exception, all the patients were greatly relieved by the removal even of small amounts of fluid, and many recovered completely who would probably have died had the operation not been performed. (2) The most suitable place for puncture is, in ordinary cases, in the fifth left intercostal space, one inch from the edge of the sternum; but if the pleura be adherent, the puncture may be made safely much further out, and even in the sixth space. (3) The instrument employed should be a trocar and cannula, with or without aspiration. (4) The operation may be performed with advantage, not only in the pericardial effusions of rheumatic or primary origin, but also in those which occur in the later stages of general dropsy, if it should appear that the fluid in the pericardium is adding to the difficulties under which the heart is placed. (5) Purulent pericarditis is best treated on general principles, like empyema. (6) The pericardial sac may be safely opened and drained. (7) This treatment, moreover, appears to be the only one which offers the slightest hope of recovery. (8) The results do not seem to be as unfavorable as those of empyema, for the walls of the cavity are better able to contract rapidly, and thus permit its complete obliteration.

**PAINFUL CONGESTION OF THE LIVER IN THE EARLY STAGES OF ALCOHOLISM.**—But little has been written concerning the early stages of hepatic disease in hard drinkers. The symptoms at this time are insignificant, or at any rate are not troublesome enough to disturb the equanimity of persons that are not habitually solicitous about their health. Dr. Mathieu was led to examine the liver carefully in a number of patients who already presented some of the early signs of alcoholism. In no instance was there any subjective symptom of hepatic disorder, yet there was always an increase of liver dullness of about one inch above the normal. There was at same time some tenderness on pressure. In the majority of cases examined there was also a slight enlargement of the spleen. The author regards this enlargement, combined with tenderness on pressure, as indicative of a congestion bordering on inflammation. It will in time pass into true inflammation, which may, according to circumstances, assume the form of general hepatitis or of one of the varieties of chirrrosis. (The Medical Record.)



THIRTY CASES OF ACUTE GOITRE TREATED SUCCESSFULLY BY THE EXTERNAL APPLICATION OF THE BINIODIDE OF MERCURY OINTMENT.—Surgeon-Major Albert A. Gore, M.D., of Dublin, reports in Dublin Medical Journal the following: "This affection is uncommon among European soldiers serving in Bengal, only two or three cases of ordinary bronchocele appearing in the returns from year to year. Its occurrence has been attributed, as is well known, to a variety of causes, of which impure drinking-water is the oldest—as old as Hippocrates. It seems certain, from evidence produced by French observers, that it may be produced in this way in from eight to ten days, but evidence equally strong seems to prove that it may occur epidemically with an absolutely pure water-supply. In the above cases it certainly occurred with a very pure water-supply. The patients affected were all soldiers of the thirtieth regiment, of which I was in charge—at a military station in the Kumaon Hills, six thousand feet above sea level, where ordinary goitre is endemic among the inhabitants. Two Indian physicians of repute have attributed its origin in these hills to very different causes. One, Dr. McClelland, thinks that it is largely in excess in the limestone districts, whilst Dr. Macnamara says that, when occurring in the hills, it is due to malaria. The latest theory advanced by Dr. Woakes, that the point of departure in the morbid process is a paresis of the vaso-motor nerves which mediate the vessel area constituted by the thyroid gland, was not then before the profession. Dr. Mouat, of Bengal (*Indian Annals of Medical Science*, 1857), was the first to notice specially the value of the use of biniodid of mercury in combination with the rays of the sun in the cure of goitre. His practice was to use the mercury as an ointment of the strength of three drams to a pound of lard; a portion was rubbed in an hour after sunrise, the patient afterward sitting with his goitre well exposed to the sun as long as he could endure it. After this a fresh layer of ointment was carefully applied, and in ordinary cases a single application was sufficient. Of the value of this treatment in India there can be no question.

The disease in most cases commenced as a soft swelling of generally the right lobe of the gland, gradually spreading and becoming somewhat indurated. Frequency of pulse and palpitation were not observed. In the early months of the stay of the regiment at Buxa the disease often occurred in an acute form, several men presenting themselves at hospital on the same morning, and stating that the goitre had come on during the previous fortnight. The native soldiers term the disease gheza, and attribute its origin to the hardness of the drinking-water, the characters of which have been noticed already. The treatment generally lasted from three to six weeks, two applications of the red iodide-of-mercury ointment (sixteen grains to the ounce) being in most cases found sufficient, together with the administration of Lugol's iodine tincture.

In the Indian Medical Gazette for January, 1879, are given three cases, by Mr. T. E. Hall, the first occurring in the person of a young married lady, at Madras, in which the gland steadily enlarged from shortly after marriage, apparently coincident with impaired health and irregular, scanty menstruation and anemia, but which was readily cured by the local application of the biniodide-of-mercury ointment, applied freely with an ivory spatula, and afterward exposed for ten minutes to the heat of a small pan of live coals, with the result of a well-blistered surface. This is a very good plan during the rain or when the sun is obscured. The second case occurred in a Bengalee—anemic; was of two years' growth, without any well-marked cause. The swelling disappeared entirely after the third application of the ointment, and had not reappeared in two years. The third case was of long standing and of the cystic variety, and was not so favorably affected.

I knew of only two cases occurring among European women—one the wife of the school-master, born in Derbyshire. She had a uniform and well-marked goitre of late growth. Immediately after her confinement it disappeared without treatment. The other, wife of a supervisor of works, very anemic and in feeble health, owing to having several children in quick

succession. In her the disease was cured by the local application of the red iodide-of-mercury ointment. I have observed that the duration of the treatment varied according to the systematic manner in which it was carried out. When the ointment was properly rubbed in and the goitre sufficiently well exposed to the sun it was the more quickly cured.

THE NEW TREATMENT OF GRANULAR LIDS BY JEQUIRITY.—Dr. Standish, of the Massachusetts Eye and Ear Infirmary, reports, in *Boston Medical and Surgical Journal*, thirteen cases in which he used this drug. He says:

The drug is prepared for application by putting the freshly-pulverized seeds into cold water, and allowing them to macerate for twenty-four hours, then filtering, and the preparation is ready for use. Our first preparation was made according to the first prescription of Wecker, which was three grams of the seeds to one thousand grams of water. This preparation was used on three cases, but entirely failed to produce any result. The next preparation used was according to Wecker's second prescription, ten grams to five hundred grams of water. This was the form in which the drug was used in nine of the cases. In four of the cases the preparation was made by digesting ten grams of the drug for five hours, exposed to the air with just enough water to cover the powder, and then placing it in five hundred grams of water, allowing it to remain for nineteen hours, and filtering. The preparation was freshly made for each case. The method of application was to paint the outside of the lids thoroughly with the above preparation, using a small camel's-hair brush for that purpose, and then everting the lower lid and carrying the brush rapidly across it two or three times. This was done three times a day. A separate brush was used for every patient. The patient was kept in a dark room during treatment, and as long afterward as seemed necessary. After the applications were discontinued no further treatment of any kind whatever was given. The first application was always at night.

Deductions made from so small a number of cases are of course not absolutely to be depended upon, but nevertheless they have a certain amount of real value. In appearance the cases at their acme resemble in all external particulars a case of ordinary purulent ophthalmia, but it will be noticed that in order to maintain this con-

dition stimulus from repeated applications of the wash is necessary, and that as soon as these are omitted all symptoms, both local and constitutional, immediately begin to subside. The same control can be exercised to a partial degree by reducing the strength of the wash. This is a quality of the greatest importance, as it enables us, if the symptoms are becoming exaggerated, to check the progress of the inflammation immediately. From this fact, danger to the other eye from inoculation is very slight, as there would have to be repeated inoculations to produce any effect. This is well illustrated in the reported cases, as in seven of them it was used in one eye only, and no precautions were taken to prevent such an accident, and yet in no case did it appear, which certainly is far from the every-day experience with purulent ophthalmia. From the time of the discontinuance of the applications, the recovery is apparently progressive until the conjunctiva is quiet and smooth. The principal symptoms, which seem to be most grave, and which appear to indicate a reduction of the strength of the wash or a discontinuance of the treatment before the usual number of nine applications is made, are continuous pain in the eye, spreading over the forehead, and an edema of the upper lid, together with chemosis sufficient to make pressure on the cornea. In four cases where these symptoms were prominent, the results were not as good as in other cases, except in one case where the wash was reduced to one half strength on the second day. It would seem, also, that the treatment needs to be pushed up to the production of the constitutional symptoms, as prescribed in the notes. In one case where this was not done, there were a few granulations remaining, although they were apparently shrinking in size when the patient was discharged. This treatment of granular lids seems to be appropriate at all stages in which the palpebral conjunctiva is in a highly vascular condition, with perhaps this single exception: In cases where the granulations are sufficiently large to cause marked fullness of the lid, this, together with the superimposed edema, seems to make the application of the conjunctiva of the upper lid to the globe of the eye sufficiently tense to prevent the influence of the wash extending over the whole lid, as well as irritating the cornea with its pressure.

With this treatment danger to the cornea necessarily presents itself for serious consideration. In none of these cases did any corneal application occur during treatment, that is, while the applications were being made, but in five of the cases there supervened in from three days to three weeks afterward either slight ulcerations of the cornea or an increased vascularity. The result in none of these

cases has been serious, but they serve to direct attention to what may be an important fact, namely, that three of the five had previously experienced burns or some accident to the eye, and one case had previously exhibited a tendency to serious corneal ulceration. There was no history of an accident in any of the other cases. Another factor that may have had an influence on these cases was that in three of them the third preparation mentioned at the commencement of this article was used, which I so prepared on the theory that the infusoria in the wash caused the inflammatory action; whether this is true or not, this wash certainly produced a much more violent inflammation than the other, and in the only other case in which it was used it was necessary to dilute it very materially. This latter case did well. With a close attention to the symptoms, as before stated, and an avoidance of these classes of cases, I think we may have no fear of corneal complications. In advocacy of this treatment, it may be safely said that in two thirds of the cases the result was highly satisfactory; that more was accomplished in three days of active treatment and ten days to two weeks' rest, than is commonly the case by three months' active treatment in cases of similar character by the usual methods. The patients themselves testified to the relief they experienced from it by requesting the same treatment in the other eye when only one had at first been treated.

That it is a specific is not claimed, but of the fact that it is a step in advance there can be no doubt.

CONTUSIONS OF THE BRAIN AND SPINAL CORD.—Dr. John A. Lidell, late surgeon to Bellevue Hospital, New York, in an elaborate practical paper on this subject, in the July number of the *American Journal of the Medical Sciences*, discusses the clinical history, diagnosis, prognosis, and treatment of this large and very important class of injuries. While much is said in our text-books on the subject of cerebral concussion—of its dangers and of its importance—but small if any mention is made of the contusions of the brain which so very often complicate the concussions, and impart to them whatever of gravity, be it much or little, that they may chance to possess. And still less mention is made of the contusions of the spinal cord. No wonder, then, that bruises of the brain-structure and of the spinal-cord substance occur much more frequently than is generally sup-

posed, that the relationship which exists between these injuries and concussions is not well understood, and that the bruises of these organs often escape even all suspicion during life.

That slight or even moderate concussions of the brain sometimes, perhaps not infrequently, occur without being complicated with contusions of the brain, Dr. Lidell does not doubt. Contusion of the brain is, therefore, he believes, not synonymous with concussion of the brain; but, at the same time, all the evidence now collected tends to prove that the severe instances of cerebral concussions are always complicated with cerebral contusion. Concussion of the brain, however, derives its chief importance from the fact that it is very often associated with contusion of the brain; and, in examining a case of cerebral concussion, the question of most importance for the surgeon to decide is whether or not cerebral contusion is also present.

These are points of doctrine which practically have much interest for patients as well as practitioners, because of the influence they are likely to exert in the direction of procuring a correct diagnosis and, consequently, a wise treatment; for, in the disorders of no other parts of the body is it more true that an accurate diagnosis begets a wise plan of treatment than in those of the brain and spinal cord.

REPORT OF EIGHT CASES OF COXALGIA IN WHICH ELEVEN OPERATIONS OF SUBCUTANEOUS OSTEOTOMY HAVE BEEN PERFORMED IN THE CHILDREN'S HOSPITAL, PHILADELPHIA.—In a paper in the July number of the *American Journal of the Medical Sciences*, Dr. H. R. Wharton records eight cases of coxalgia followed by marked deformity, in which eleven subcutaneous osteotomies of the femur were performed. The results obtained were most satisfactory, not only as regards the immunity from danger in the operation, but also as regards the correction of the deformities and restoration to use of comparatively useless limbs.

The amount of constitutional disturbance following the operations was insignificant, as little, or even less, than that which follows a simple fracture of the femur; in no case was there



excessive hemorrhage at the time of operation, nor did there follow in any case marked febrile reaction or suppuration; the wounds healed as ordinary tenotomy wounds, and by the end of the first week were generally found entirely closed, so that further dressings could be dispensed with.

The facility with which the wounds healed in these cases can only be explained by their subcutaneous character, for, although by the operation a compound fracture of the femur is produced, it must be remembered that the original puncture, which is made down to the bone by Mr. Adam's knife, is small, and that when the saw is introduced and cuts the bone, the wound is entirely filled by its shank, by blood and by dust from the sawed bone, so preventing the admission of air to the deeper parts.

The results of reported cases bear strong testimony to the general safety of the operation, and there is no doubt that the selection of proper cases, and care as to the position at which the section of the bone is made, will render this operation one of the safest in surgery.

The paper concludes with a full and careful discussion of the various details of the operation.

**CORROSIVE SUBLIMATE AS AN ANTISEPTIC.**—Since Koch's experiments (Boston Medical and Surgical Journal) upon the power of antiseptics, the efficacy of corrosive sublimate as a germicide has led to its quite extensive use as a surgical antiseptic.

Dr. H. Kümmell has described at some length the experience with it in Schede's Clinic. Although at the time of his paper they had been using it for several months in wounds of all sorts, and in patients of all ages, no cases of poisoning had occurred. In two cases of feeble old men slight salivation followed its use, but this quickly yielded to treatment. This immunity from toxic effects seems to be due to the great dilution of the solutions used. Of these there are two: one containing one part of corrosive sublimate to one thousand parts of water, and the other containing one part of corrosive sublimate to five thousand parts of water. The only ill effect of the sublimate

solution is that it roughens in the hands of the surgeon or dresser. Kümmell says "the sublimate solution, which is itself without smell, does not irritate the wounds, puts a stop to secretion, and disinfects in a short time foul discharges."

Sublimate gauze and wadding are made by soaking gauze or absorbent cotton in a solution containing

Alcohol, . . . . .	4490 parts.
Glycerine, . . . . .	500 parts.
Corrosive sublimate, . . . . .	10 parts.

It is then wrung out, and when dry is ready for use.

Sublimate sand is extensively used in Schede's Clinic. To prepare this, ordinary clean sand is heated in a crucible to destroy all organic matter, and then impregnated with a solution of corrosive sublimate in ether, of which enough is used to deposit on evaporation one dram of sublimate in every pound of sand. This sand thus prepared is poured directly into the wounds. In one case of resection of the hip the cavity was filled with a kilogram of the sand. Outside of it an absorbent bent dressing is applied to catch the discharges filtering through the sand. For absorbent dressings, glass wool, so called, is used in Schede's wards. This is very fine spun glass, soft enough to be made into cushions like oakum. Glass thread woven or braided into strands is used for setons. Silk, when used, is soaked for two hours in a one-per-cent sublimate solution. Catgut has not yet been successfully prepared, the trouble being that it dissolves too readily. Carbolic acid is still retained for the spray and for soaking the instruments.

NOTE OF DISINFECTANTS.—Dr. W. E. Buck writes: Most practitioners must have often realized the inefficiency of disinfectants in allaying the fetor of cancerous ulcers, an annoyance which sometimes troubles patients even more than the pain, or the thought of death. I have used the whole round of disinfectants for cancerous ulcers, but all have failed in allaying the fetor, and keeping the ulcer clean. The disinfectants tried were carbolic acid, sanitas, terebene, resorcin, creasote, boroglyceride,

chloride of zinc, charcoal, etc. After failure with these, I tried a saturated solution of hyposulphite of soda added to an equal quantity of water, and found it exceedingly efficacious. The ulcerating surface was well syringed and washed with the solution, and was then covered with rags steeped in the solution. The granulations were kept clean, and the fetor was well kept under. Most disinfectants seem to lose their virtue after a few days' application, but I have used this one for months in the same patient with continuous good effects. It is cleanly, has no smell, does not stain, and is very cheap. (*British Medical Journal.*)

PRESENCE OF *BACILLUS TUBERCULIS* IN AN ABSCESS NEAR THE ANUS.—Dr. Robert C. Smith writes: Six months ago, a young clerk, aged twenty-one, came under treatment for hemoptysis and other signs of phthisis. After about three months' treatment he became strong enough to resume his employment, at which he continued up to the commencement of this month. I saw him on the fifth, when he was suffering acutely from an abscess in the neighborhood of the anus; and, fearing lest it might burst into the bowel and give rise to a painful blind internal fistula, I opened the abscess at once and let out a quantity of thin, curdy, fetid pus. A microscopic examination of this fluid by a half-inch object-glass, after the usual process of staining, revealed the presence of great quantities of well-marked typical tubercle-bacillus. Now, the presence of these organisms in this situation is interesting, as they tend to throw some light on the well-known connection between fistula and phthisis. (*British Medical Journal.*)

AMPUTATION BELOW THE KNEE-JOINT IN PREFERENCE TO "BRISEMENT FORCE" OR RESECTION IN CERTAIN CASES OF DEFORMITY WITH ANCHYLOSIS.—Dr. Lewis H. Sayre, of New York, gave an address before the Surgical Section of American Medical Association, illustrated by two cases, in which he took the following grounds: "Certain cases of diseases of knee-joint un-

less treated with proper extension and counter-extension, result in more or less deformity, consisting of flexion and laxation of the leg backward. In this position the limb may become solidified or fixed. If the ankylosis is fibrous it can be broken up, and frequently results in the use of the limb and the use of the joint. If the solidification is bony and the limb of the same length as the other V-section through the angle of the deformity, an operation should be performed, and the limb straightened and ankylosed in this position. But in those cases where the disease of the joint has taken place in early life and resulted in bony ankylosis and deformity, the limb below the joint grows much more slowly than the other, and, as after V-sections through the bone the limb does not grow, by the time the patient reaches adult life it becomes so short as to be practically useless. In these classes of cases amputation below the knee-joint is preferable when performed by a modification of Professor Smith's amputation at the knee-joint, Dr. Sayre preferring to saw through the head of the tibia rather than disarticulate at the joint. He also exhibited several photographs showing the condition of the stump seventeen days after the operation completely healed, with the cicatrix entirely behind, and not subjected to the pressure of an artificial limb, as well as the limb applied in the standing and sitting posture."

**GAULTHERIA IN RHEUMATISM.**—Dr. Flint said, in the New York Medical Journal, that Dr. Alexander, one of the house physicians at Bellevue Hospital, furnished him the following statistics with regard to the use of gaultheria in that institution in cases of acute articular rheumatism. Of thirteen cases thus treated, of which the histories were given, one patient contracted pneumonia after the cure of the rheumatism, and died in the hospital; a second one remained in the hospital, at the expressed wish of the commissioners, some time after cure of the remaining eleven cases; the longest duration of the disease in any one case was fifteen days, and the shortest two days. The average length of time that the eleven patients remained in the hospital

was a fraction less than five days. These figures would seem to point to rather better results from the drug than those which were ordinarily obtained from salicylic acid. The oil of winter-green was the preparation used, and it was administered several times a day in ten-drop doses in flax-seed tea, which made it less disagreeable to the taste and to the stomach. In some of the cases the alkaline treatment was employed at the same time with the gaultheria. Dr. Ball remarked that Dr. Kinnicut had used the oil of gaultheria in a number of cases of acute articular rheumatism in St. Luke's Hospital, and with even better results than those mentioned by Dr. Flint. The drug was administered in milk, and was less disagreeable when taken in this manner than salicylic acid or salicylate of sodium. Dr. Ball thought that the action of the medicine was like that of the two latter.

THE TREATMENT OF THE FRACTURES OF LONG BONES.—Dr. Jas. R. Taylor, of New York, presented a paper to the Surgical Section of the American Medical Association, in which he spoke of fracture of the femur, which he treats with a saddle made to fit into the perineum, whereby he believes he secures the most perfect comfort possible by any apparatus used for the purpose of counter-extension. This little saddle is held in position by a strap running to the head-board on each side, thus securing the patient in an immovable position. By plaster extension secured to a screw arrangement in the foot of the bed he can produce any desired degree extension of the limbs by simply turning the little screw at the foot of the bed, the chief advantage of the whole apparatus over all other instruments being the little saddle on which the patient sits, as it were, with comfort, he claims, rather than misery, as in most other methods. The author announced himself as positively opposed to the old method of using stones and other suspensory weights to produce extension of the limbs, and then turned his attention to the treatment of fractured ribs. He brings the broken ends into place by raising the arms over the head, an original method by

which he claims there is no trouble in adjustment. They are then held in place by a band of adhesive plaster around the body.

**TO STOP HICCOUGH.**—Dr. Martin Burke writes, in *Medical Record*: "Perhaps the narrative of these two cases may prove of interest. J. C. was suddenly seized with an attack of hiccough. The cause was unknown. All the usual remedies were tried in vain. Dr. John Burke, my father, was then called upon. Noticing the convulsive heaving of the patient's ribs, more particularly upon the left side, he firmly compressed the side between his two hands, and in a short time the hiccough ceased for the first time in days. Mr. C., aged thirty, was attacked, first with vomiting, and then with hiccough most violent and convulsive. Morphine suppositories would produce sleep, but even in sleep the hiccough was distressingly severe. As his vomiting had now ceased, almost every remedy known was called to our aid, but it was not until we had compressed his heaving ribs that the hiccough almost instantly ceased. It returned indeed within twenty-four hours, but compression again arrested it.

**TO DISGUISE THE ODOR OF IODOFORM.**—Dr. Andrews, of Staten Island, N. Y., writes to the *Medical Record* that cumurin will disguise the unpleasant odor of iodoform. Cumurin, a derivative of the Tonka bean, is an anhydrate of cumuric acid. It disguises the odor of iodoform more effectually and permanently than do other drugs with which we are familiar, nor does it form, when incorporated with iodoform, lumps of powder which are slow to dissolve. The minimum amount of cumurin which I have found sufficient to disguise the odor of iodoform is three grains of the former to one dram of the latter.

**CHANCROID TREATED BY RESORCINE.**—According to Leblond et Fissiaux, resorcine, dissolved in twice its weight of water, offers an inodorous and efficient substitute for iodoform in the treatment of venereal ulcers.



### *Notes and Queries.*

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THE UNIVERSITY OF LOUISVILLE.—The Trustees of the Jefferson Medical School of Philadelphia, having tendered to Prof. Parvin, of the University of Louisville, the Chair of Obstetrics recently made vacant by the resignation of Prof. Wallace, he has accepted the place, and will remove to Philadelphia early in the fall. This step was necessarily followed by the resignation of Dr. Parvin in the University, where he has lectured so acceptably to the classes of this institution. He will take with him to his new and larger field of labor and usefulness the very kindest wishes, not only of his colleagues and the classes whom he has taught, but of countless friends both in and out of the profession. We commend our distinguished friend to the Faculty in Philadelphia, and bespeak for him the same hearty welcome and generous appreciation which has characterized their treatment of the many other superior writers and teachers whom Philadelphia has drawn at various times from the South and Southwest—a field from which we may be permitted to add, “though much is taken, much abides.”

The vacancy made in the Faculty of the University was at once filled by the Board of Trustees by the transfer of Prof. Ochterlony from the Chair of Materia Medica, Therapeutics and Clinical Medicine, to that of Obstetrics and Diseases of Women and Children.

Prof. Ochterlony has been so long before the profession as writer and teacher, in both which fields he has such well-earned reputation, that it is unnecessary to speak of him in this connection. It may, however, be just to the friends of the University to add that for many years past his daily work in the line of his present chair has been very large as practitioner and

consultant. Both the Trustees and Faculty believe that a better man for the place it would have been difficult to find.

The regular session of the institution will open on the first Monday in September. Prof. Bodine, the Dean, informs us that the prospects for a large class were never better.

AMERICAN MEDICAL ASSOCIATION.—The thirty-fourth annual meeting of the American Medical Association was held in Cleveland, June 5th, 6th, 7th, and 8th. Dr. X. C. Scott, chairman of Committee of Arrangements, called the meeting to order and introduced Dr. John L. Atlee, the distinguished Pennsylvanian, as the President of the Association. President Atlee in turn introduced Gen. Edward S. Myer, who delivered a cordial address of welcome, after which came the President's address. The address consisted of reminiscences of the early medical life of Dr. Atlee, told in a delightful manner. When he began his studies, sixty-eight years ago, there were only six medical colleges in the country, one each at Philadelphia, New York, Baltimore, Harvard, New Haven, and Lexington. Among the teachers at this time in Philadelphia, of whom the venerable president gave personal descriptions and happy anecdotes, were Dr. Caspar Wistar, Dr. Nathaniel Chapman, Dr. William P. Dewees, Dr. Hugh L. Hodge, Dr. John K. Mitchell, Dr. Syng Physick, Dr. Joseph Parrish, Dr. George McClellan, Dr. George B. Wood, Dr. Isaac Hays, and others.

Dr. Atlee had something to say in regard to the code of ethics. Above all things, he said, ever strive to maintain the honor and dignity of the profession; let no selfish or mercenary consideration deter you from observing the laws laid down in our noble Code of Medical Ethics.

The concluding words of the address were words of cheer and encouragement to the good physician. He said; "One word more and I have done, and I say it chiefly as a word of encouragement to the younger among you. At the close of a long life, one devoted unreservedly to the study and practice of medicine, I will say that, notwithstanding its uncertainties, its

fatigues, its anxieties, its bitter disappointments, I am completely satisfied that in no other career can a man more fully accomplish his whole duty to God and to his fellow-men; so that when life here is ended it can be truly said of him as—be it said with all reverence—was said of Him whom we all should imitate, *pertransiit benefaciendo*, He went about doing good."

Dr. N. S. Davis presented the report of the trustees of the new Journal. The report showed that pledges of subscription to two thousand and five hundred had been received, and the trustees had decided that the journal could be published without financial loss to the Association.

Resolutions were adopted ordering the publication of a weekly journal, to be called the *Journal of the American Medical Association*, in place of the published Transactions. Dr. N. S. Davis, of Chicago, was chosen editor of the new Journal, and A. D. Newell & Co., of the same city, publishers.

The address on Medicine was delivered by Dr. J. A. Hollister, of Chicago, and related to the progress in medicine, physiology, and materia medica during the past year, and especially to microscopy.

The address in Obstetrics was by the chairman, Dr. Bartlett, of Milwaukee, who reviewed Emmett's, Battey's, and Tait's operations, and discussed the use of ergot and anesthetics in labor.

Dr. W. F. Peck, of Davenport, Iowa, read the address in Surgery. He spoke of the new instruments and the new operations, comparing the present with the past. He also touched upon the subject of Listerism in Surgery, giving some of its failures and successes in private practice and in the English army.

Dr. Foster Pratt, of Michigan, delivered the address on State Medicine. One important fact brought out in this address was, that attention to public health in England during the past seven years has increased the average length of life of males two full years, while in females the increase has been three and a half.

Many other practical and interesting papers were read, which we presume will soon appear in the Journal of the Association, the first number of which will be published in July, 1883.

Dr. S. D. Gross offered a resolution recommending the establishment of training schools for nurses in every county in the States and Territories.

Dr. S. Pollock, of St. Louis, offered a resolution in regard to revision of the code. A motion to lay the resolution on the table was carried almost unanimously, showing that the Association at the present time did not wish to consider the question.

The Committee on Nominations presented the following report, which was adopted:

*President*—Austin Flint, sr., M.D., of New York.

*Vice-Presidents*—R. A. Kinloch, M.D., of Charleston, S. C.; T. B. Lester, M.D., of Kansas City, Mo.; A. L. Gihon, M.D., of U. S. Navy; and S. C. Gordon, M.D., of Portland, Maine.

*Treasurer*—R. J. Dunglison, M.D., of Pennsylvania.

*Librarian*—C. H. A. Kleinschmidt, M.D., of Washington.

*Place and Time of Meeting*—Washington, on the first Tuesday in May, 1884.

*Chairman of Committee of Arrangements*—A. Y. P. Garnett, M.D., of Washington.

*Assistant Secretary*—D. W. Prentiss, M.D., of Washington.

*Chairmen of Sections*—Practice of Medicine, J. V. Shoemaker, of Pennsylvania; Obstetrics, T. A. Reamy, of Cincinnati; Surgery, C. T. Parks, of Illinois; Ophthalmology, J. J. Chisholm, of Baltimore; Diseases of Children, Wm. Lee, of Indiana; State Medicine, J. D. Roberts, of Tennessee; Oral Surgery, T. W. Brophy, of Illinois.

AMERICAN SURGICAL ASSOCIATION.—The fourth annual meeting of the American Surgical Association was held in Cincinnati, May 31st and June 1st and 2d, with the president, Prof. Samuel D. Gross, M. D., in the chair. Dr. Gross, having once been a resident of Cincinnati, felt at liberty, in calling the Association to order, to extend to the members a cordial welcome to the Queen City in a few local medical reminiscences, and thereby stole some of the thunder of Prof. P. S. Connor, M. D., who afterward in his laconic style bid them a hearty welcome.

After reading of the minutes by the secretary, Dr. J. R. Weist, Dr. Nancrede, of Philadelphia, read a paper entitled "Have we any Therapeutic Means, as proved by Experiment, which directly affect the Local Process of Inflammation?"

This paper was founded on a series of experiments conducted upon the web of a frog's foot. Traumatic inflammation of the frog's foot was produced, and then local blood-letting was resorted to, and markedly relieved the inflammation. Blood-letting in general is advocated, but special attention is paid to local abstraction of blood to relieve local inflammation. An abstract of Dr. Nancrede's conclusions is, (1) During the stage of dilated arteries, with increased rapidity of the current, there is but little danger of capillary changes with exudation; and here perhaps ergot, and certainly arterial sedatives, do good. (2) *After* stasis has occurred, with weakening of the heart's action and a diminished volume of the current, bleeding will only do harm. (3) The objects desired and secured by local blood-letting are removal of blood on the venous side and lessened force of circulation, although there is increased rapidity. (4) Arterial sedatives in the latter stages are usually inadmissible, except as succedanea to blood-letting. *After* blood-letting, sedatives lessen intravascular pressure, and thus relieve pain. The paper was discussed with a good deal of vigor and difference of opinion.

Following Dr. Nancrede came Dr. B. A. Watson with a paper on "Lister's System of Aseptic Wound-treatment versus its Modifications."

Lister's treatment, he said, is based upon the following conditions: (1) The continued exclusion from wounds of all living germs, or the prompt destruction of the same in those cases where they have gained admission, thus preserving in the wound an absolutely aseptic condition until it has healed. (2) Complete and uninterrupted approximation of the wound surfaces. (3) The avoidance of all irritation or any disturbance of the wounded parts. These three points constituted the text, the principles of which were well maintained, although opposed in the discussion by several.

At the afternoon session Dr. John H. Packard reported a case of re-amputation at the hip-joint for osteo-myelitis, with hemorrhage on the sixth day, which necessitated ligation of the common iliac artery. The patient recovered, the ligature separating on the twentieth day.

Dr. T. G. Richardson presented a paper of much interest on "An Anomalous Case of Profunda Aneurism," and exhibited the specimen for examination. In this case Esmarch's bandage was applied and failed, and then ligation was tried, and eighteen months afterward thrombosis occurred, followed by gangrene, amputation, and death.

Dr. Richardson also read another paper on "The Use of the Trephine in Traumatic Empyema, associated with Thoracic Fistula."

The second day Dr. S. D. Gross read a paper on "The Value of Early and Late Operations in Surgery."

The importance of early operations was emphasized, for the reasons, (1) The less risk of shock and hemorrhage; (2) the more effectual riddance of the diseased structures; (3) the diminished probability of septicemia or blood-poisoning; (4) the avoidance of unsightly scars; (5) the less risk of recurrence of morbid action, either at the seat of operation or in other parts of the body. Dr. Gross said that the local origin of morbid growths is now generally admitted; but a hereditary tendency to the development of such neoplasms was recognized, not only as regards malignant, but also in benign growths, as in warts and sebaceous cysts. "All morbid growths are developed directly or indirectly under the influence of inflammatory action, the result of external injury, or, as is more frequently the case, of some mechanical obstruction, causing in the first instance congestion of the part, and this in turn incited action and inflammation." In cases of doubtful diagnosis he recommended to seek consultation early, for the reasons given above. Extirpation should be done not only early, but thoroughly. In cases of advanced carcinoma do not meddle, except to remove an ulcerating mass and substitute a clean wound.



We have only space to name the titles of other excellent papers read, by Dr. Basil Norris, U. S. A., on "Dislocation of the Astragalus;" "Excision of the Tarsus," by Dr. P. S. Connor; "Trephining of the Sternum for the Removal of a Foreign Body, with the Report of a Case," by Dr. S. Marks; "Some Questions with Reference to Intra-capsular Fracture of the Femur," by Dr. E. M. Moore; "Fracture of the Neck of the Femur, with Special Reference to Bony Union after Intra-capsular Fracture," by Dr. N. Senn; "A New Operation for Permanent Closure of the Jaws," by Dr. J. Ewing Mears; "A Case of Nephrectomy for Medullary Carcinoma, and Partial Cholecystectomy for Calculus in the same Subject," by Dr. S. W. Gross; "Removal of Meckel's Ganglion for Trifacial Neuralgia," by Dr. Vanderveer.

The following were recommended for fellowship: Dr. H. K. Steele, of Denver; Dr. Herbert Judd, of Illinois; Dr. Thos. M. Markoe, of New York.

The officers elected for the ensuing year were: President, Dr. E. M. Moore; first vice-president, Dr. W. W. Dawson; second vice-president, Dr. C. H. Mastin; secretary, Dr. J. R. Weist; treasurer, Dr. J. H. Packard; recorder, Dr. J. Ewing Mears; member of council, Dr. P. S. Connor.

The next place of meeting will be in Washington City on the Wednesday preceding the meeting of the American Medical Association.

*My Dear Dr. Yandell:*

I promised you that on my return from the South I would give you a few *points* gathered during my absence. These mainly pertain to yellow fever and what is termed in the South malarial hematuria. I became acquainted with some dozen or more physicians, and got a *point* from the most of them. But few of them *agreed* on any one particular thing. The nearest approach they made in this respect was in the use of calomel and in the belief that yellow fever is contagious. Dr. Stone, of Washington County, Miss., believes yellow fever prevails by

contagion from person to person, but thinks there must be local conditions to favor development. He gives calomel in sixty-grain doses, aided with oil, if necessary (the main object being to unload the *prima via*), mustard emetics and foot-baths; promotes perspiration with infusions of linseed, orange leaves, and green tea. He regards calomel as the sheet-anchor in the treatment of hematuria, and uses it in purgative doses.

Dr. Anderson is satisfied that yellow fever prevails by contagious germs, favored by local conditions. He is not particular about using mercury over other laxatives, but thinks it necessary to purge. Does not think quinine essential, and condemns excessive perspiration. Whenever the disease assumes a remittent or intermittent character, quinine is indicated. Does not believe in over-medication; treats mostly by expectant plan. Diet to be fluid, nutritious, and in small quantities. In hematuria uses quinine and calomel, the latter in ten-grain doses until free action of bowels. Quinine he uses mostly hypodermically; applies mustard freely. He has treated many cases of intermittent fever with the muriate of pilocarpin in one-tenth-grain doses hypodermically. He uses the remedy from fifteen minutes to three hours before the expected paroxysm, and has arrested the chill in some cases after it had set in. He finds it unnecessary to give quinine to prevent a recurrence of the disease. He also uses pilocarpin in the treatment of tonsillitis, asthma, and mumps. He thinks its good effects in these diseases the result of its action on the salivary glands and affected mucous membranes.

Dr. Stockherd believes that yellow fever spreads by contagious or infectious germs, but thinks there must be favorable local conditions for its development. Regards calomel and quinine as the best remedies.

Dr. Dunn believes yellow fever spreads from contagious or infectious germs. He commences the treatment with a calomel purge and mustard emetic, then diluent drinks, favoring action of skin; also uses dry cups and turpentine stupes to the spine; good ventilation, and great care in diet during convalescence.

In hematuria gives a calomel purge and quinine hypodermically. Dr. Tombs also believes yellow fever to be contagious and that it spreads by means of germs. His treatment does not vary materially from that of others.

The foregoing-named physicians reside in Washington County, Miss., some in Greenville, and some in the country. I talked with several others of Greenville, who entertained about the same views respecting yellow fever. Dr. Ray, of Grenada, a very intelligent man, president of the county board of health, is doubtful about the origin and spread of yellow fever. He practiced in the terrible scourge of 1878 in Grenada, where he had cases he could in no wise trace to exposure. Thinks the disease not contagious but infectious. Has but little faith in prophylactics. The season during the epidemic referred to was dry and unusually hot, the temperature averaging from 75° to 80° in the morning and 96° to 98° in the afternoon, from 25th July to 1st October, with only two light showers of rain. The filth and long-accumulated debris of the streets was removed only a few days before the disease appeared. His treatment is much the same as that of others.

Dr. Semmes, of Canton, president of the county board of health, noticed in 1878 as early as June severe cases of remittent fever made their appearance, and in July that disease became very prevalent, and serious apprehensions were felt that an epidemic of yellow fever was imminent. These cases of remittent simulated yellow fever very closely in their characteristics. The weather was excessively hot. The first case that was pronounced to be yellow fever could not be traced to exposure. It gradually spread over the town. Persons going to the country did not, in many instances, communicate the disease to those with whom they domiciled. He believes it is indigenous and contagious, unless we can think local causes existed at some of the plantation houses (which I believe to have been the case). He thinks there is a close relationship existing between it and malarial fever. He found in its treatment that calomel, podophyllin, and quinine produced decided

amelioration in all cases within eighteen hours, and in many cases decided remissions occurred, even in those of well-pro-nounced type. His experience in the use of prophylactics was very limited. Two nurses who had nursed many of the worst cases during six or seven weeks took during that period fifteen to twenty grains quinine daily. They both escaped with very light attacks. One other person took quinine daily during the entire epidemic, and had the disease in a very mild form. It seemed to make no difference with regard to susceptibility, but all agreed that the disease is less manageable, as well as more fatal, in dissipated persons. Women are not so susceptible as men, and children still less than women. He found negroes much less susceptible than whites, and the disease much more manageable, many getting well without treatment. Some are of the opinion that after the disease becomes epidemic it makes but little difference as to sanitary surroundings, the affluent being as liable to attack as the poor. All agree as to the utter uselessness of disinfectants. Nothing seemed to check the disease but cold weather or the want of material. As a rule, when yellow fever made its appearance in a town, a general stampede of those who were able to get away ensued. Of those who remained but few escaped. Sudden changes in atmospheric temperature proved deleterious to the sick. A second attack of the disease was not uncommon.

After spending two weeks in Mississippi I visited Crittenden County, Ark., and made the acquaintance of some half dozen physicians. They had had but little experience in the management of yellow fever. In the treatment of hematuria Dr. Erby uses hyposulphite soda with fluid extract buchu and ergot. His prescription consists of:

R Soda hyposulp., . . . . . gr. xxx;  
 Fl. ext. buchu, . . . . . ʒj;  
 Fl. ext. ergot, . . . . . ʒss.  
 To be taken every three hours.

He also uses tinct. ferri chlor. as a tonic. The hyposulphite is used as a substitute for quinine. The doctor reports many

cases relieved by this treatment. It is well enough that the physicians of Kentucky should know something of the treatment of hematuria, as it occurs in the malarial regions of the South, and with which we may sooner or later have to contend. It has only been within the last eight or ten years that we have had to treat what is known as typho-malarial fever, which is now of quite common occurrence. In this disease we may have hemorrhage from the bowels, stomach, nose, and womb. I have treated cases of this disease with all these varieties of hemorrhage. I regard them all as dependent, more or less, on congestion of the parts, together with undue attenuation of the blood, the result of malarial impress. I have seen no well-developed cases of hematuria, but regard it as due to the same causes as other varieties of hemorrhage occurring in malarial fever. The dangerous element in this hemorrhage over other varieties is suppression of urine, which frequently supervenes. Of course, we are bound to regard hematuria as a symptom rather than a disease, although it is spoken of as a disease among the physicians as well as people of the South.

Now, Messrs. Editors, after all the talk about the origin and spread of yellow fever, its germs, its exotic character, its portability, contagiousness and infectiousness, I can not but believe it is of malarial origin, and I may some time give you my reasons for thinking so.

Before I close this letter I will relate a *singular* case told me by a doctor of Arkansas. He had a case of twin labor, and after the first child was born the second presented a shoulder, and as the doctor was getting ready to turn, the patient told him it was no use, that she was going to have the baby, and that right away. The doctor says she did, but with a fractured neck. What do you think of that for ARKANSAS, as Governor Sevier called that great state? I was on the point of suggesting that delivery was accomplished by evolution and descent of buttocks, but I did n't.

T. B. GREENLEY.

OREL, KY., May, 1883.

A REASON WHY SKILLFUL SURGEONS ARE RARE.—In one of Dr. Fisher's delightful sketches of the Old Masters, contained in the *Annals of Anatomy and Surgery*, he quotes from Albucaasis as follows: "One of the principal reasons why it is so rare to meet a skillful surgeon is, that the apprenticeship to this branch is very long, and he that devotes himself to it must be versed in the science of anatomy, of which Galen has transmitted us the knowledge. He should know the functions of organs, their shape, and their relations; the number of the bones, and their modes of union; the origin and termination of the muscles, the nerves, the arteries, and the veins. In fine, no one should permit himself to attempt this difficult art without having a perfect knowledge of anatomy, and the action of remedies."

MUSTARD-AND-MOLASSES CATAPLASM.—Dr. Tyson, of Philadelphia, says that the addition of molasses to mustard, in making a sinapism, furnishes a mild, persistent counter-irritant which can be worn for hours. *New Remedies* says this reads very much like a formula it published some years ago, in which the white of an egg was recommended as a vehicle for mustard plaster, the advantage alleged for it being that it could be applied for several hours and would not vesicate. Not long afterward, however, the editor had a letter from some one who, to his sorrow, had acted on his suggestion, and was then hunting for the rascal who proposed it. (The Druggist.)

THE JOHNS HOPKINS MEDICAL SCHOOL.—According to the *Baltimore Sun*, it is probable that the medical department of the Johns Hopkins University will be opened about the 1st of October. Two of the university professors, Dr. Remsen and Dr. Martin, have been assigned, respectively, to the chairs of chemistry and physiology, and Dr. Billings, of the army, has been invited to become the professor of hygiene.